



2/55

FIG. 4

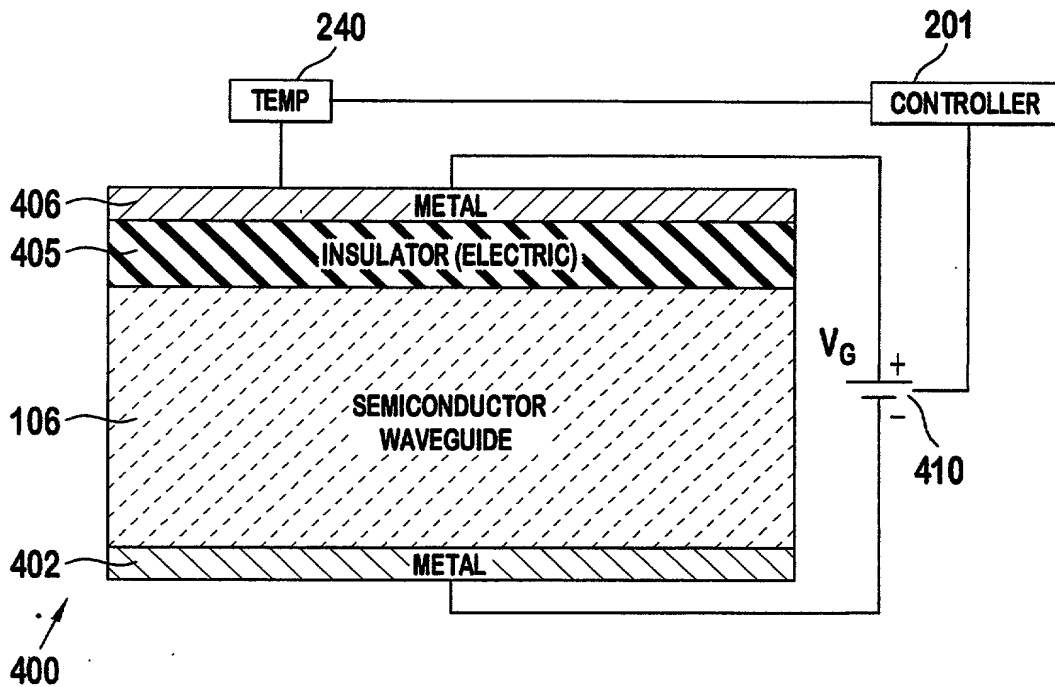
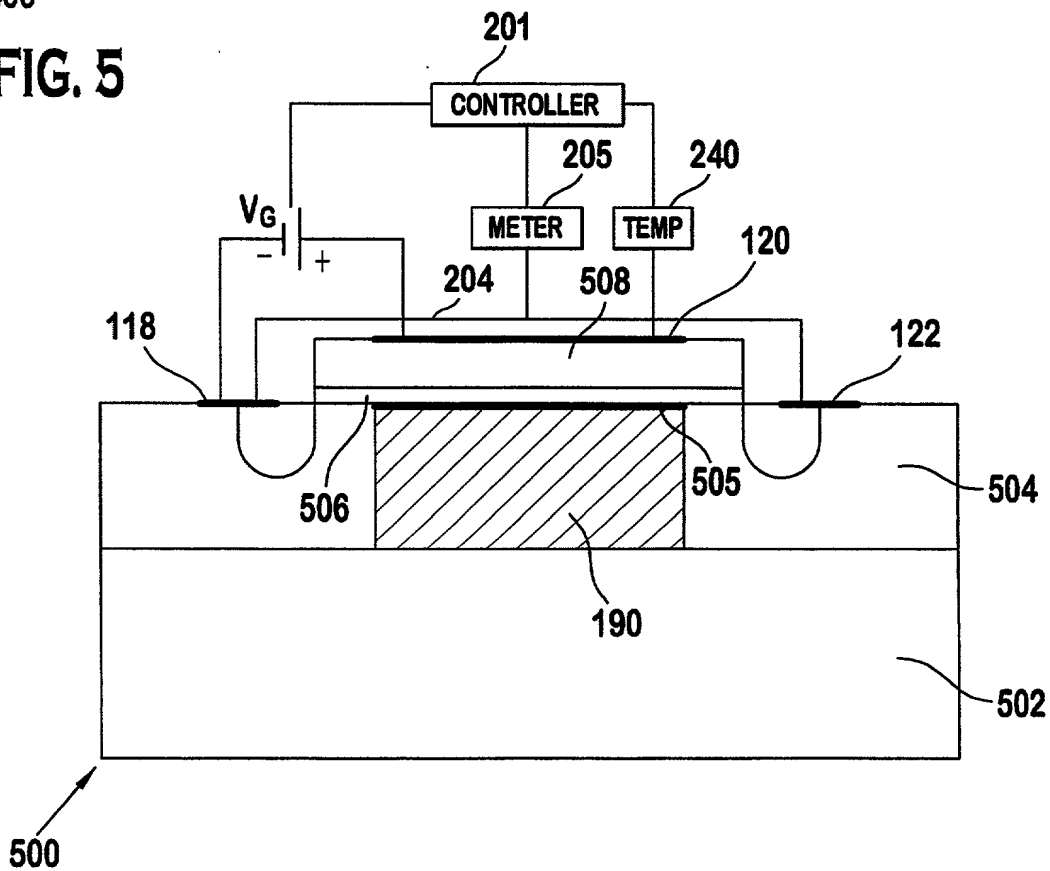
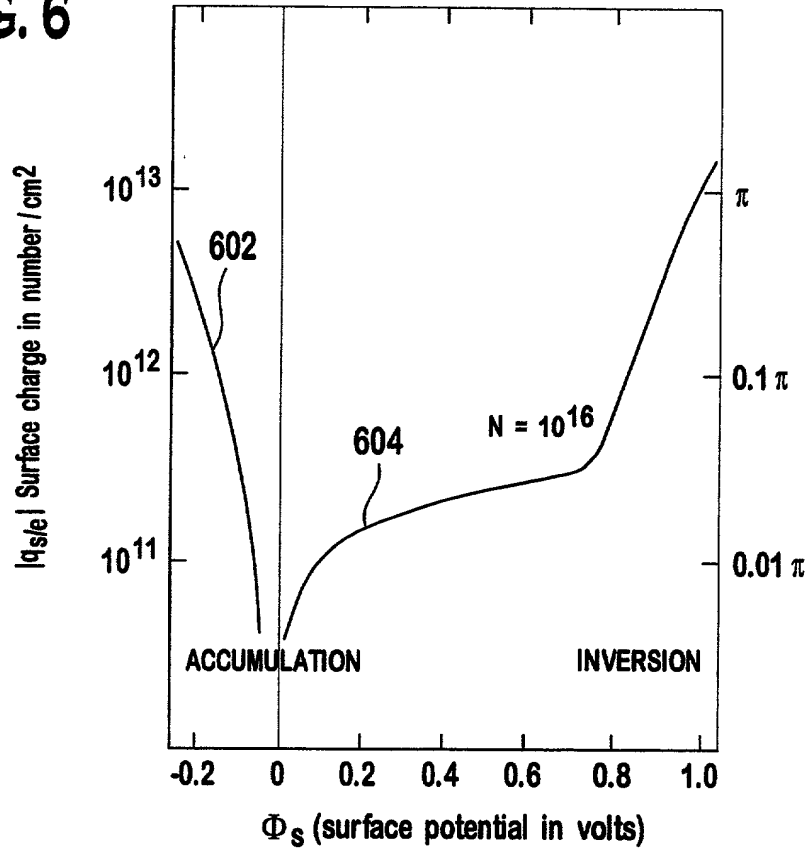


FIG. 5



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FIG. 6



Phase shift for 3 mm long device with 0.2  $\mu$ m waveguide

FIG. 7

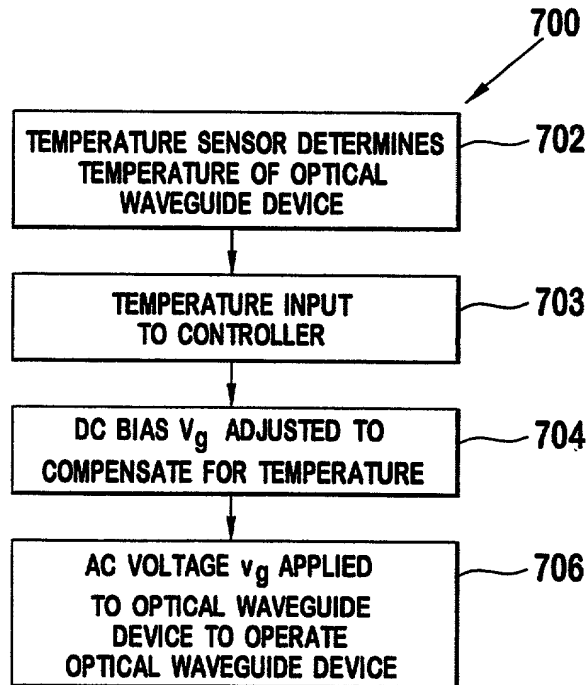


FIG. 8

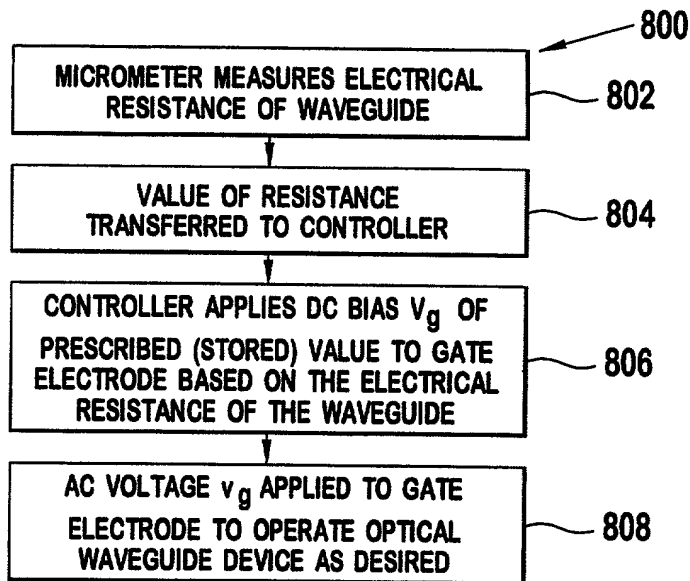


FIG. 9

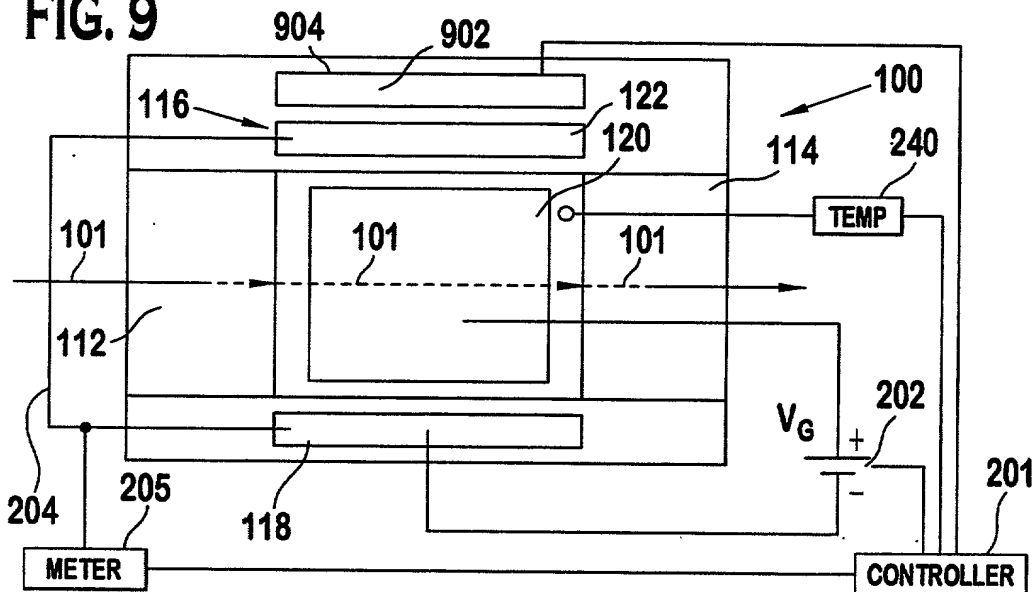
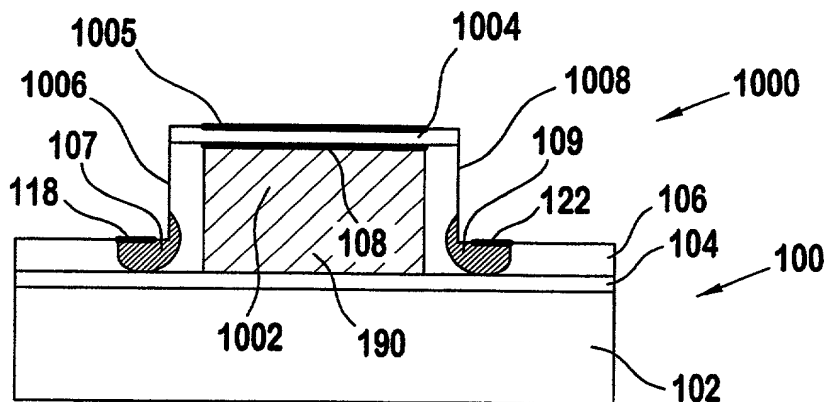


FIG. 10



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FIG. 11

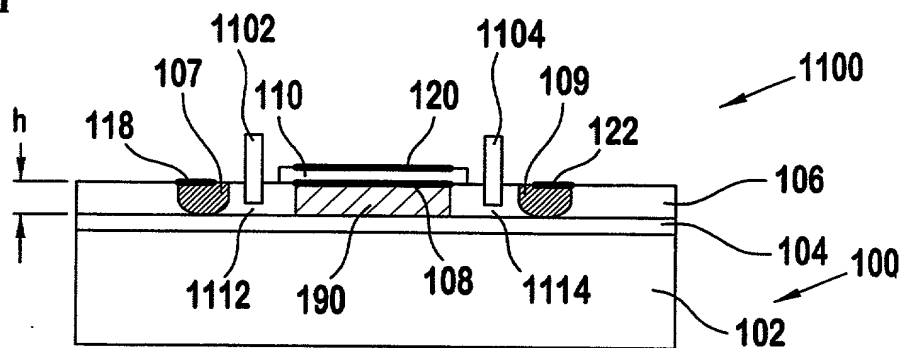


FIG. 12

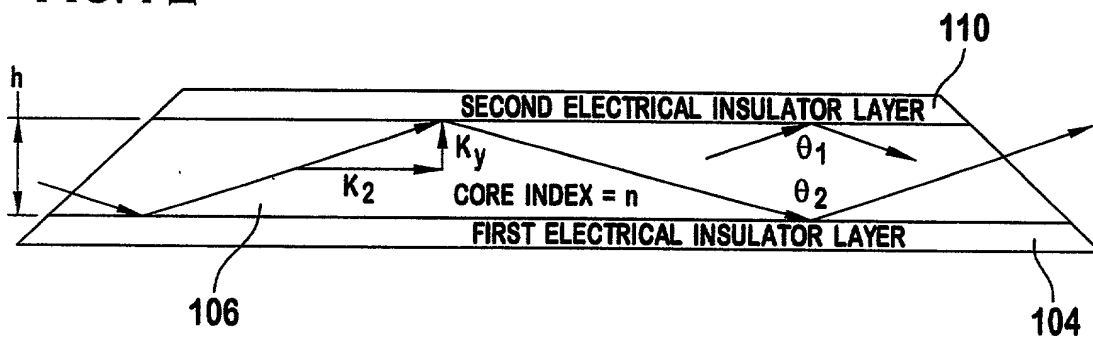
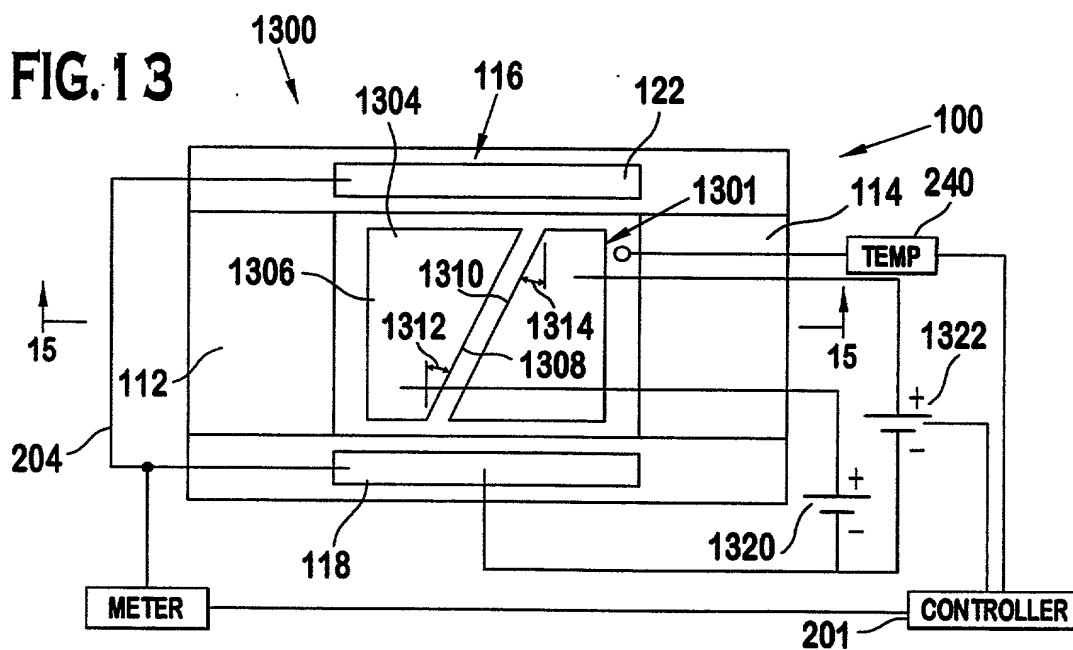


FIG. 13



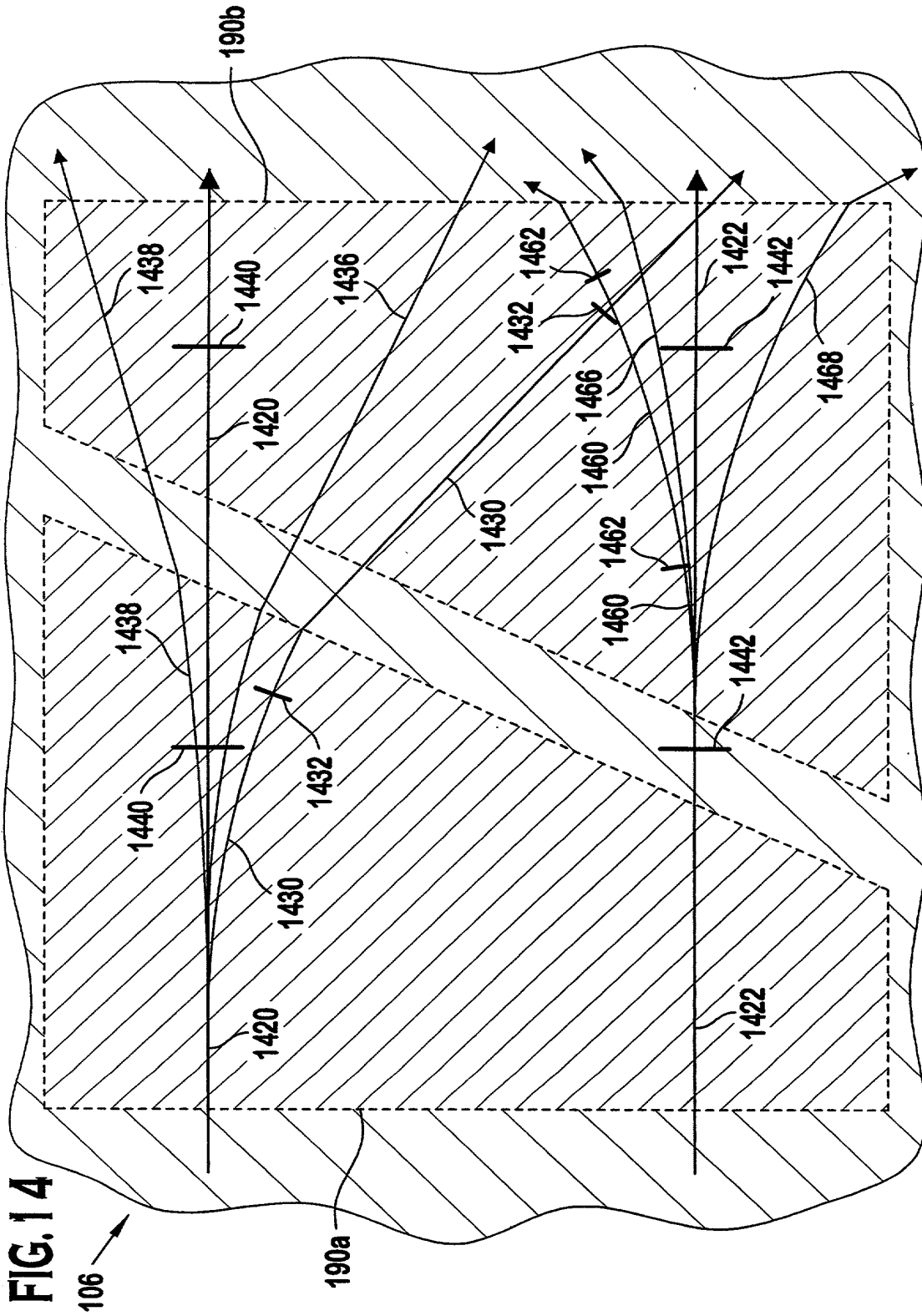


FIG. 15A

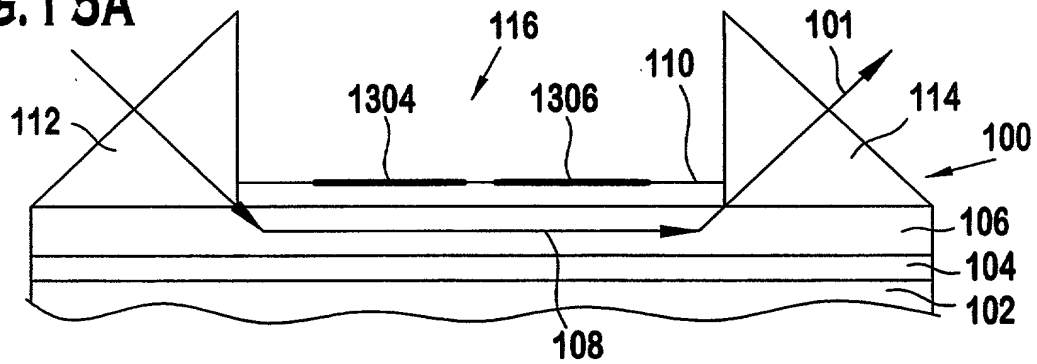


FIG. 15B

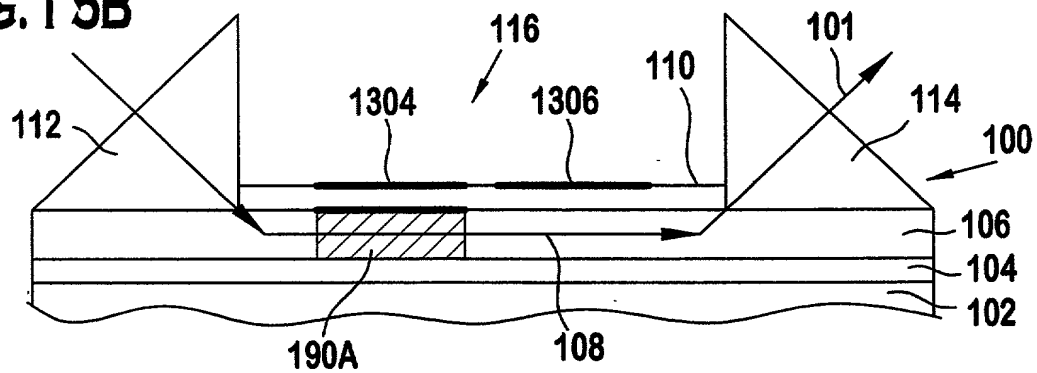


FIG. 15C

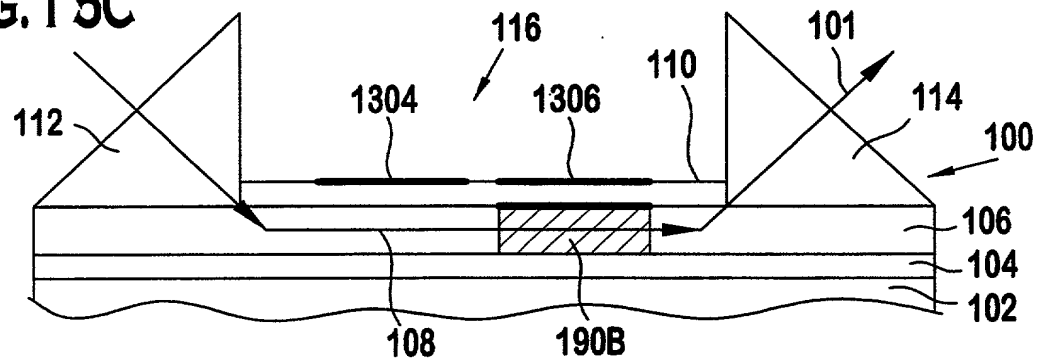
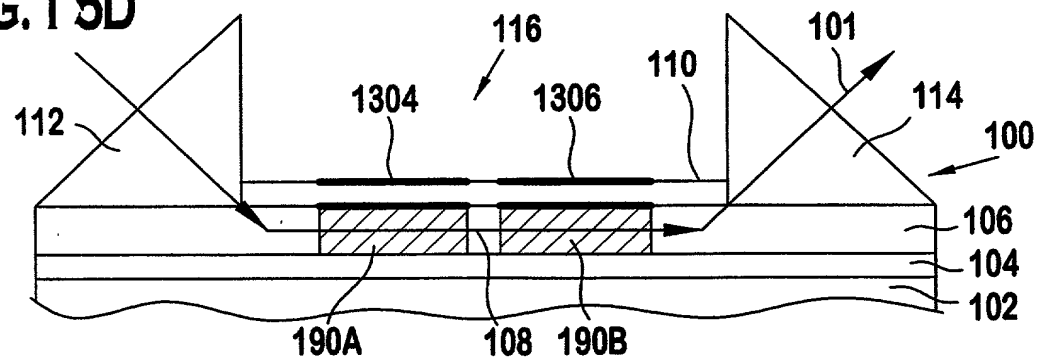


FIG. 15D



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FIG. 16

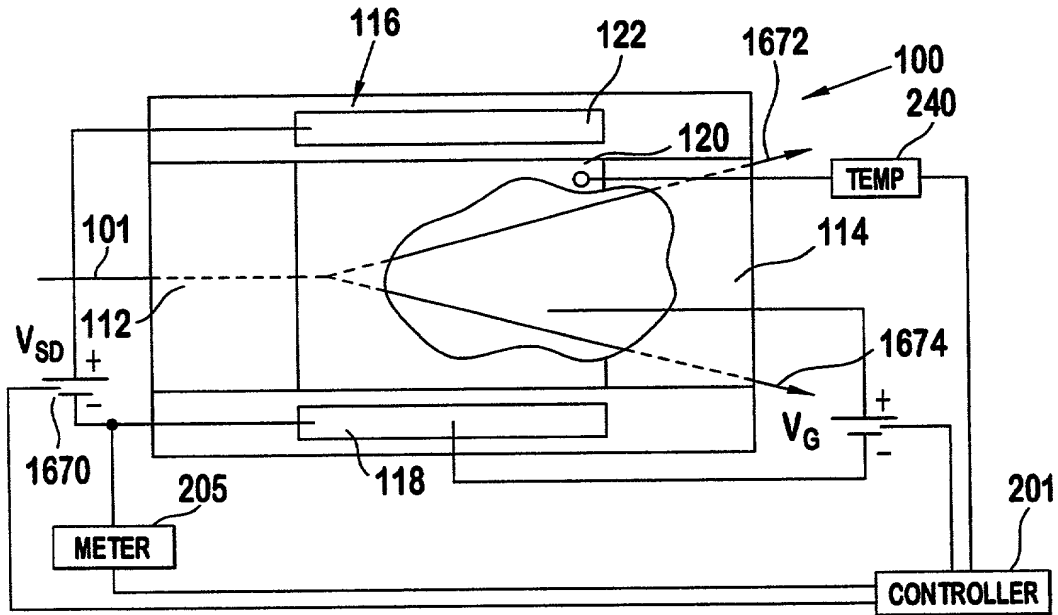
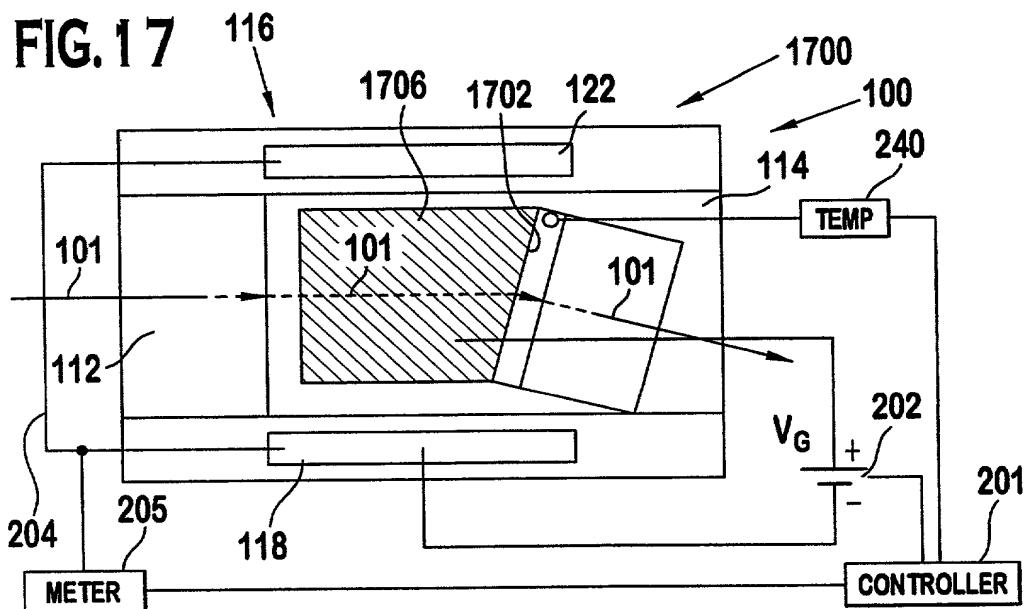


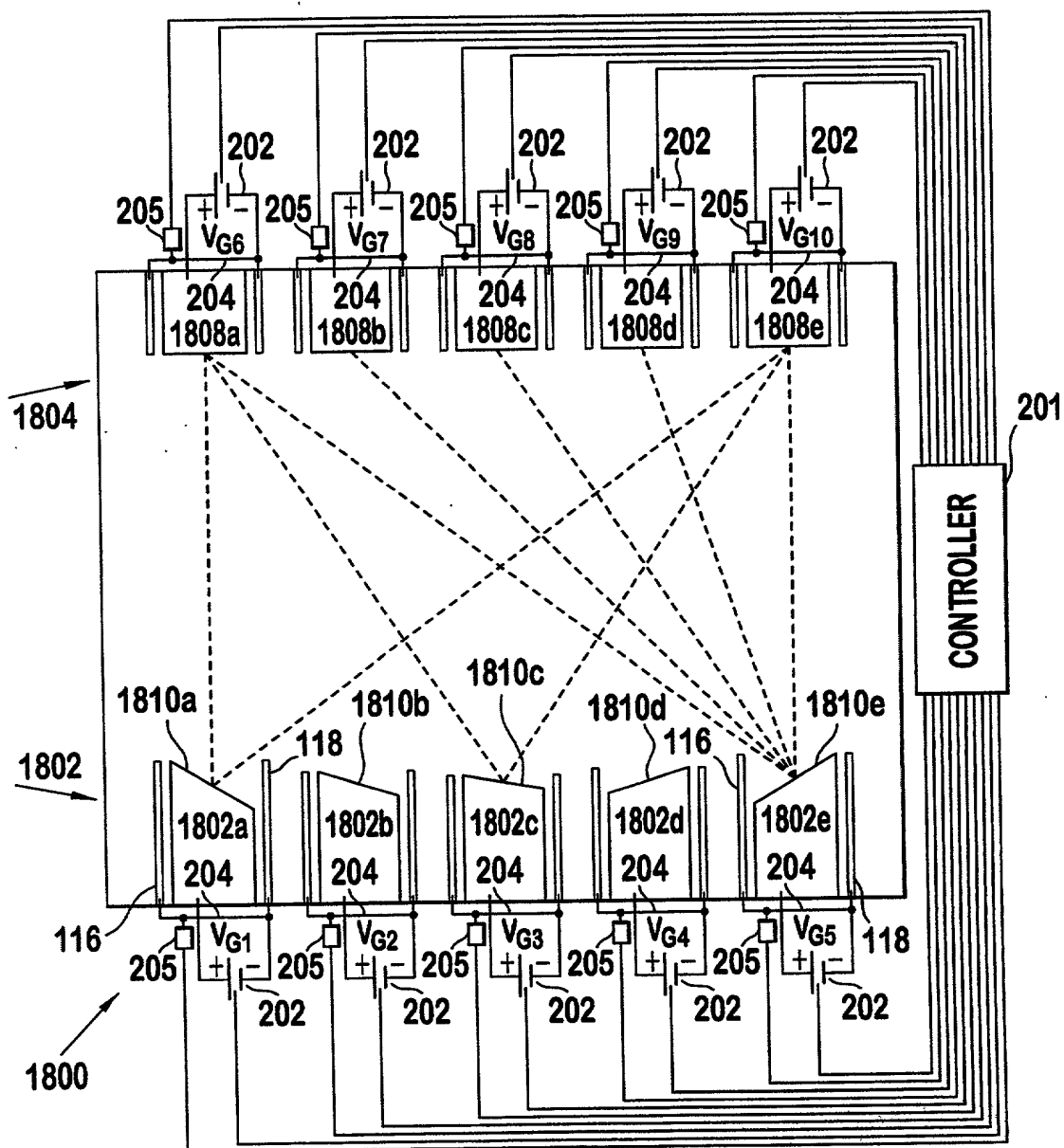
FIG. 17





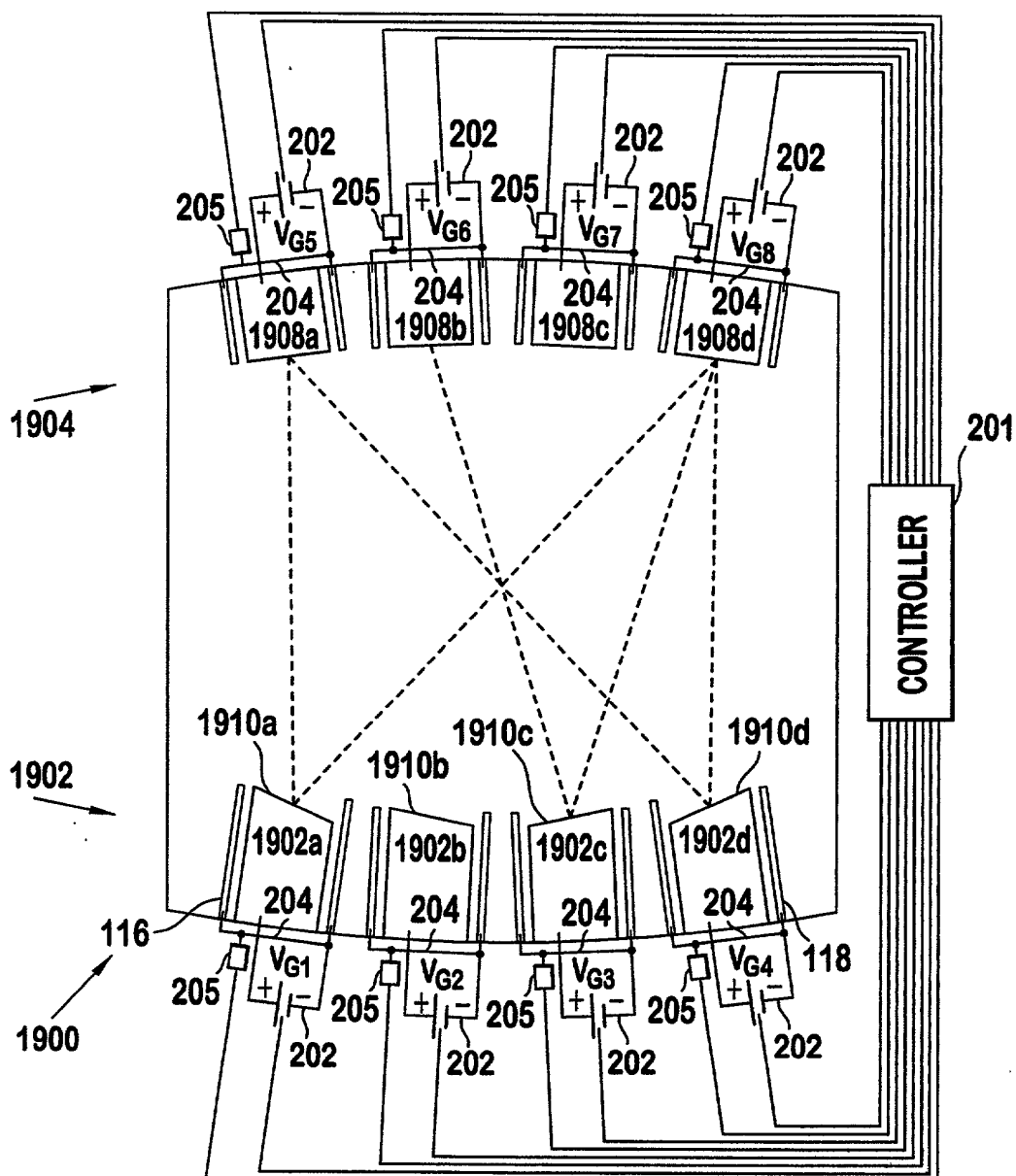
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FIG. 18



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FIG. 19



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FIG. 20

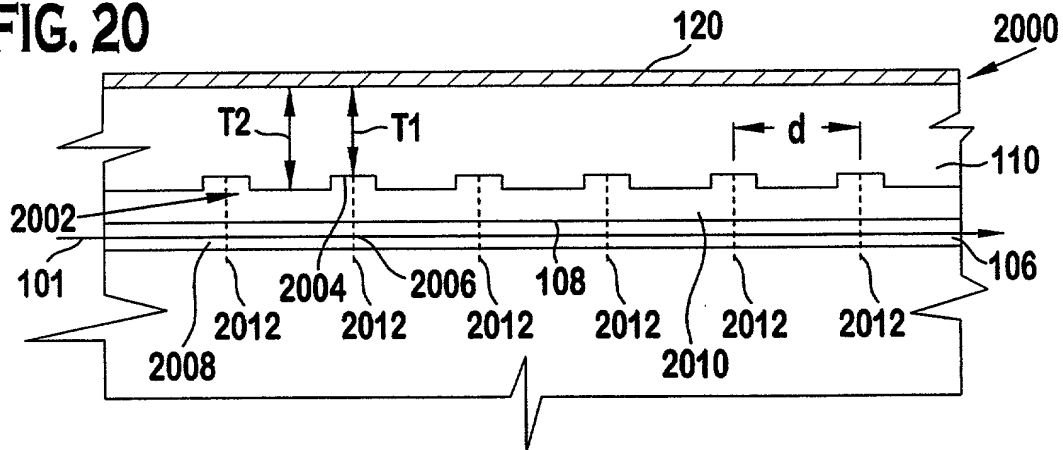


FIG. 21

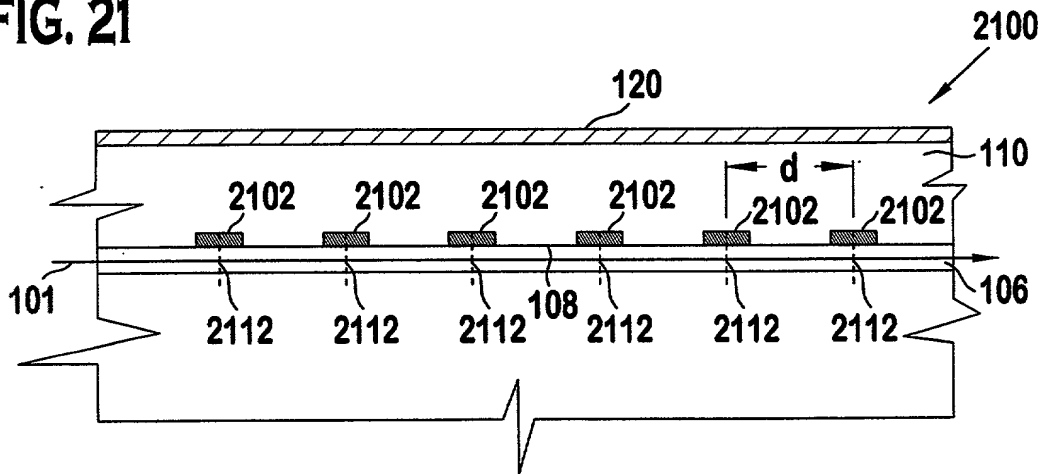


FIG. 22

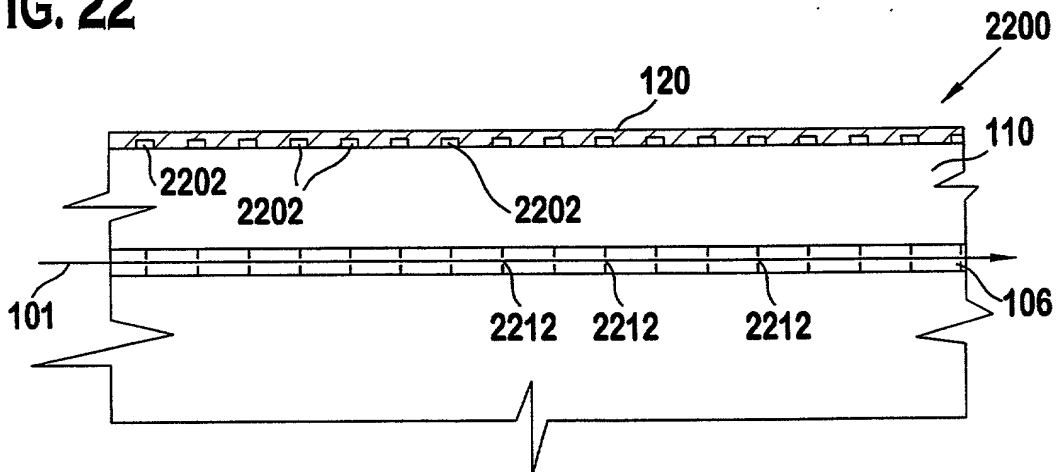


FIG. 23

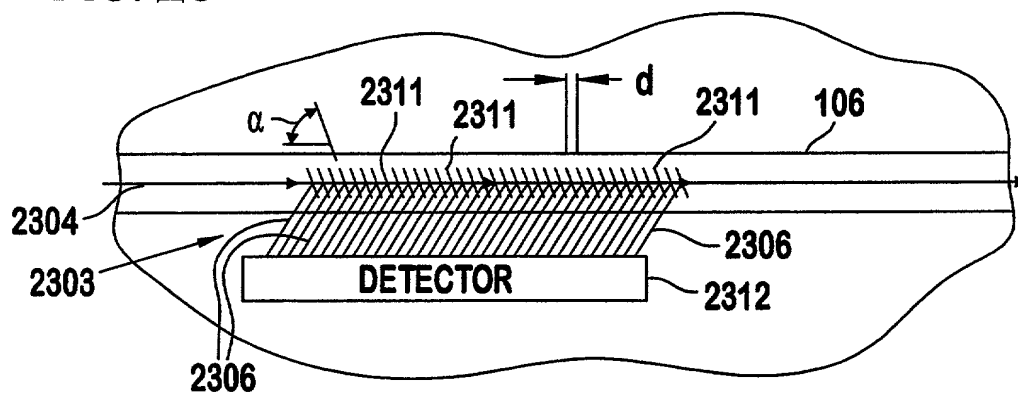
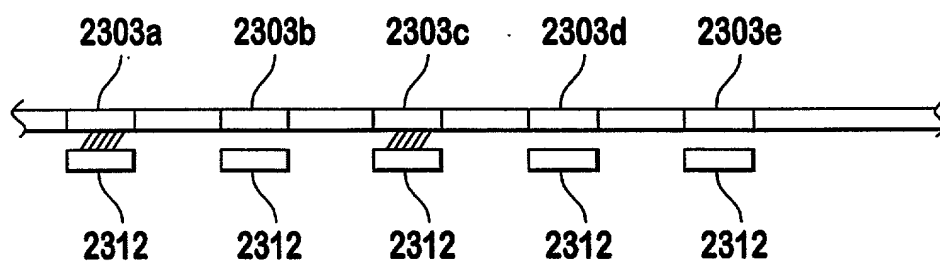


FIG. 24



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FIG. 25

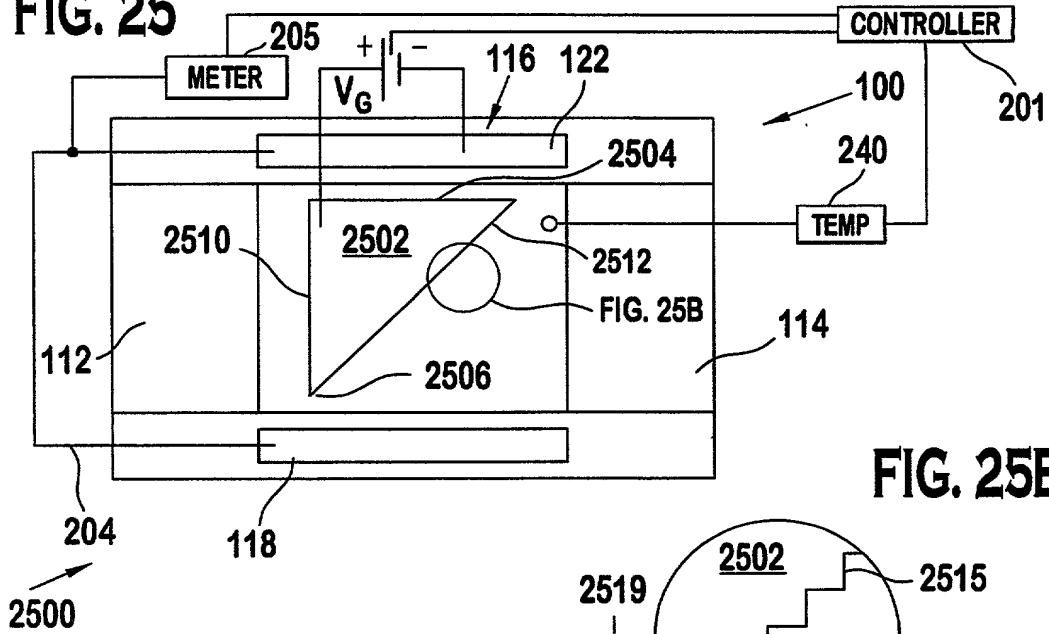


FIG. 25B

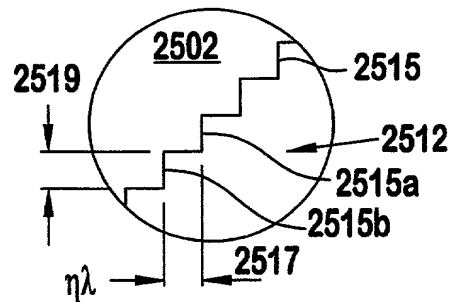


FIG. 26

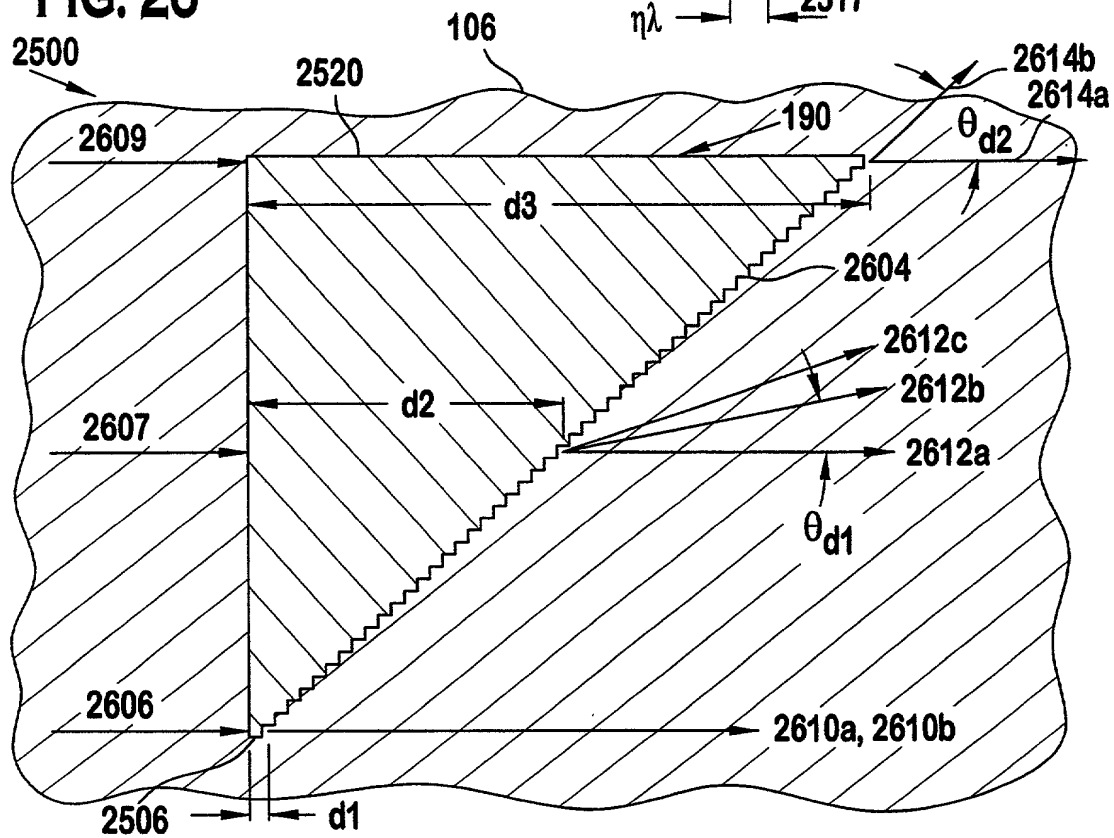


FIG. 28

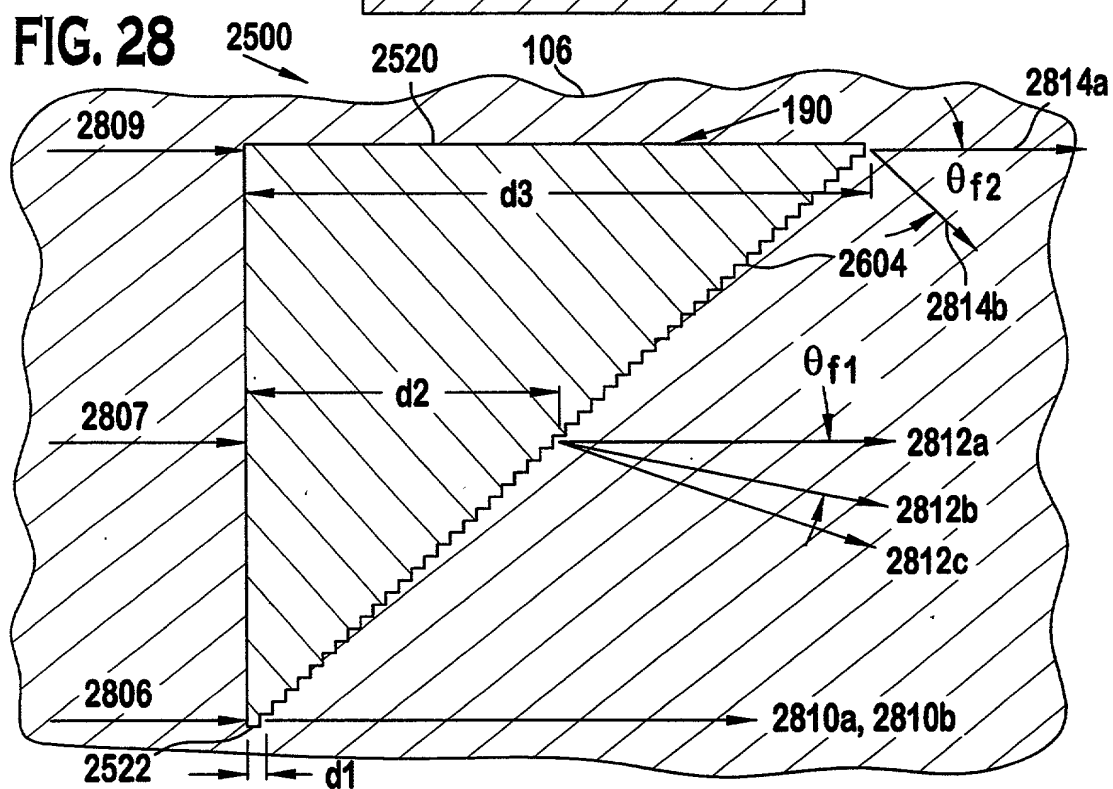
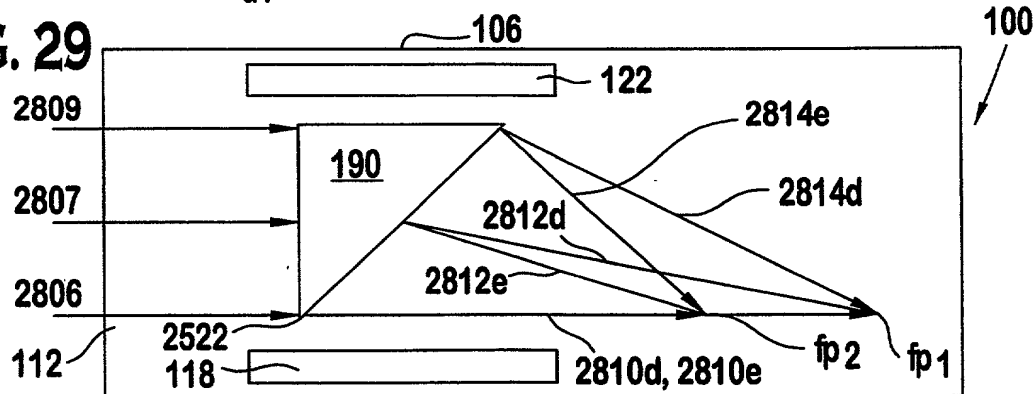


FIG. 29





[illegible]

3112a

3114a

190

3016

190

3112b

3114b



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FIG. 32

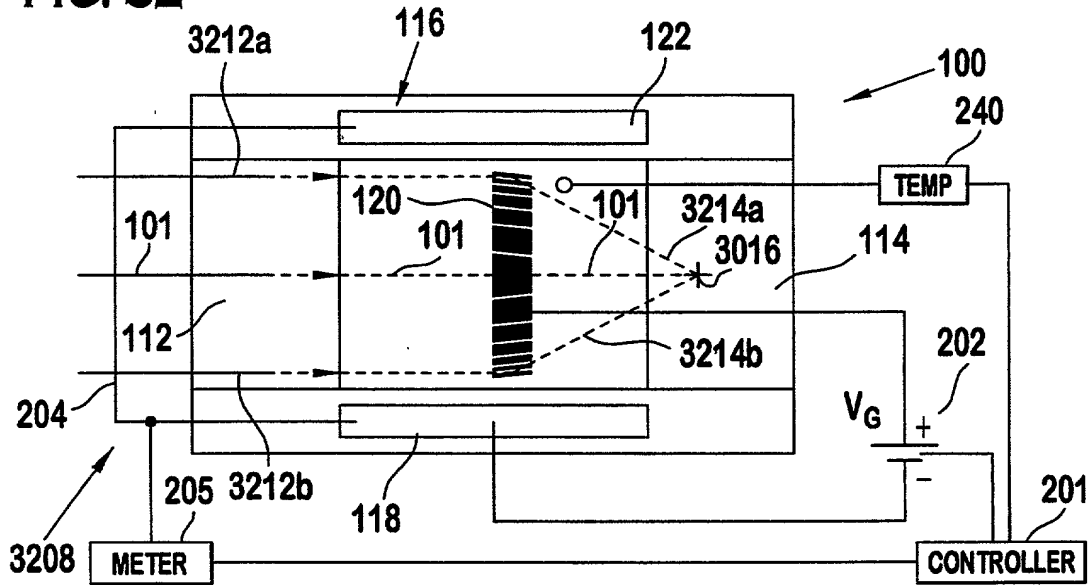
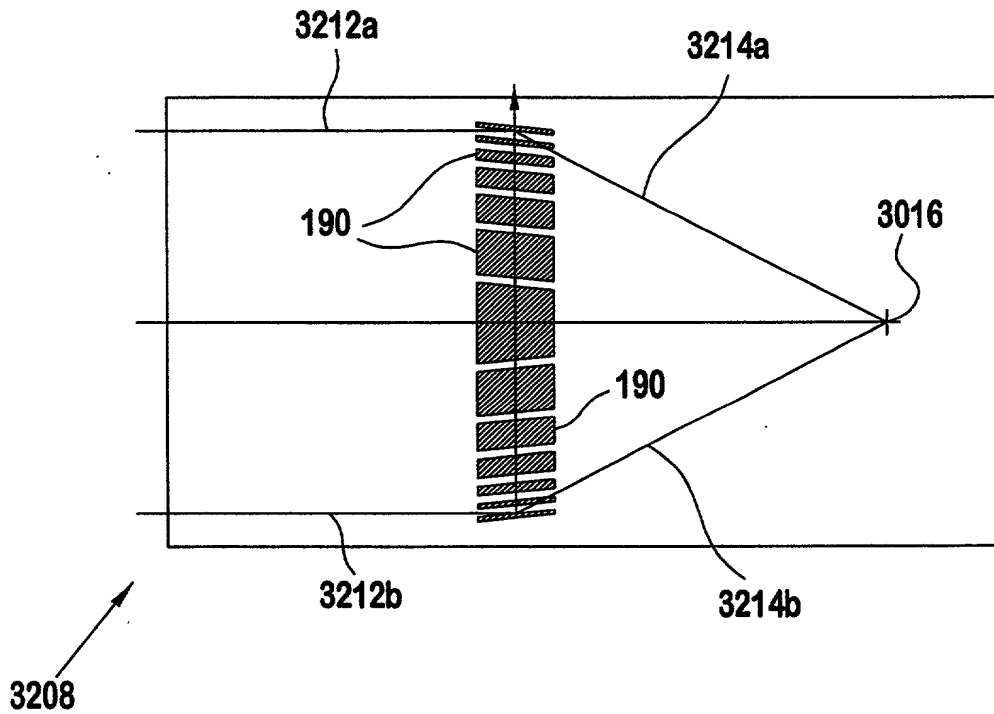


FIG. 32A



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FIG. 33

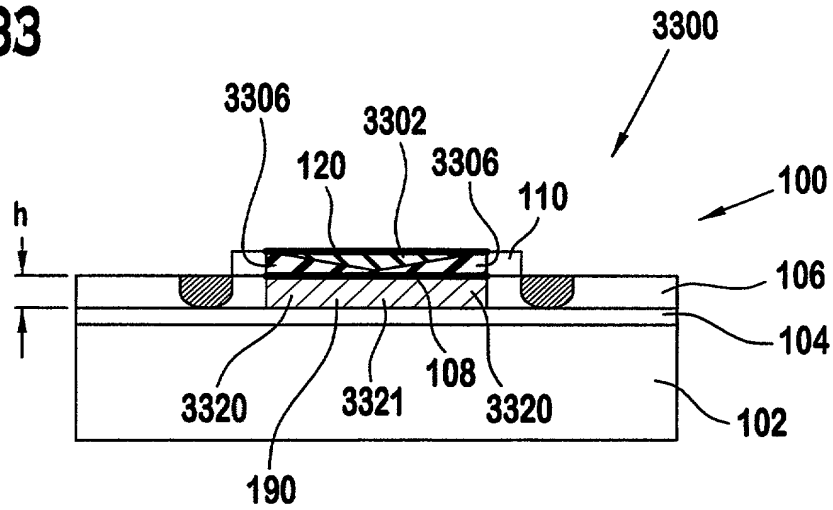
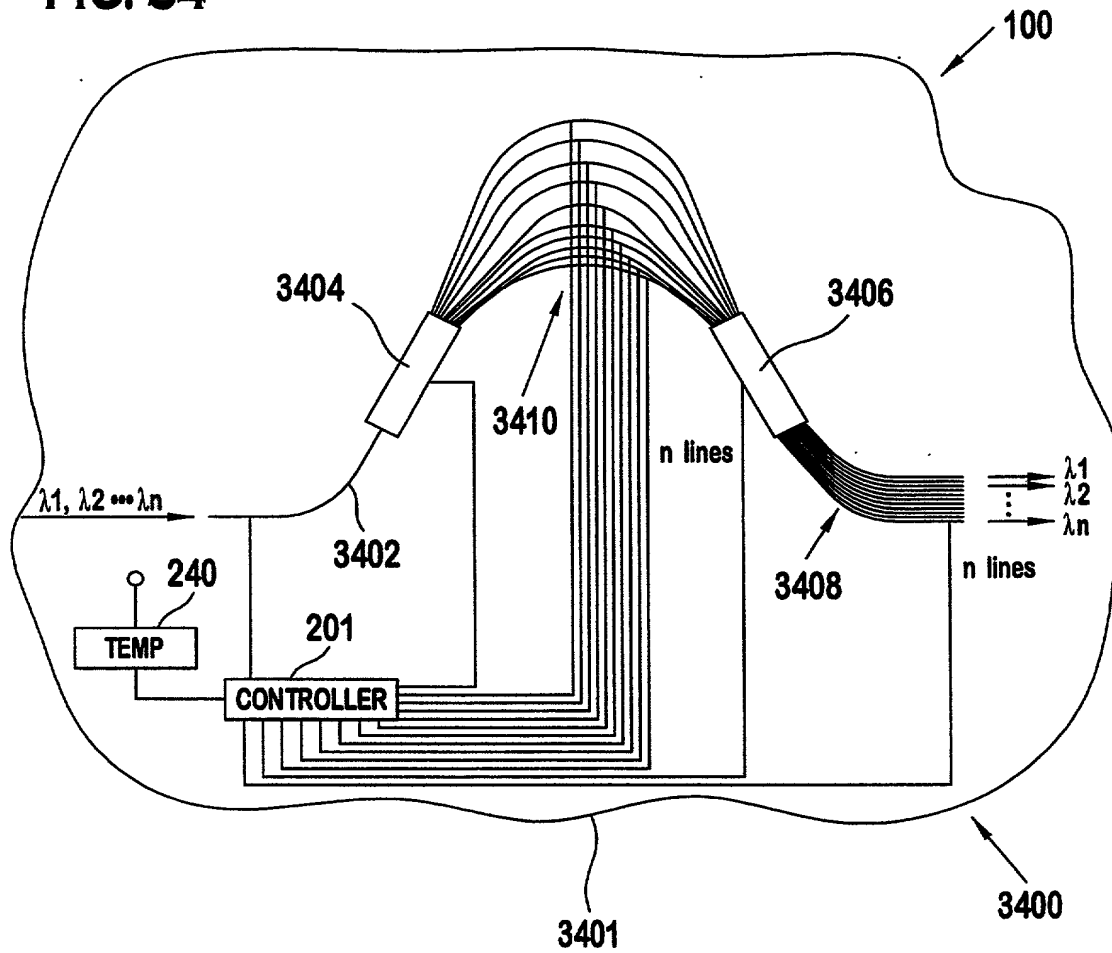


FIG. 34



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FIG. 35

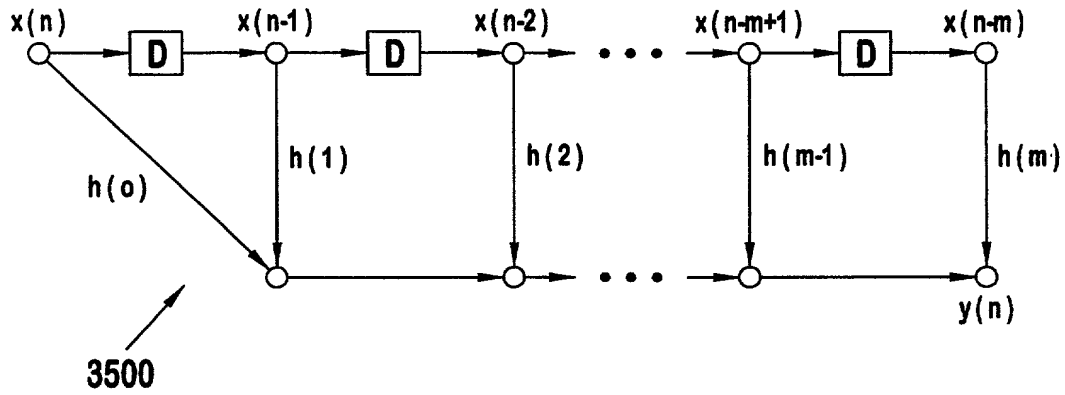
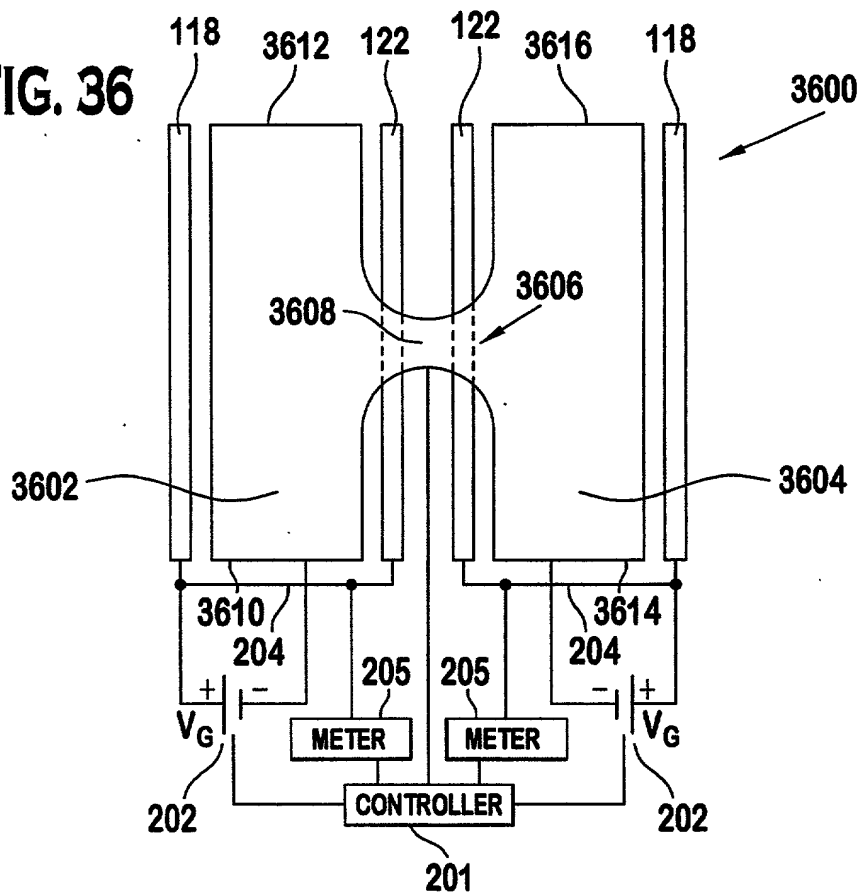


FIG. 36



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FIG. 37

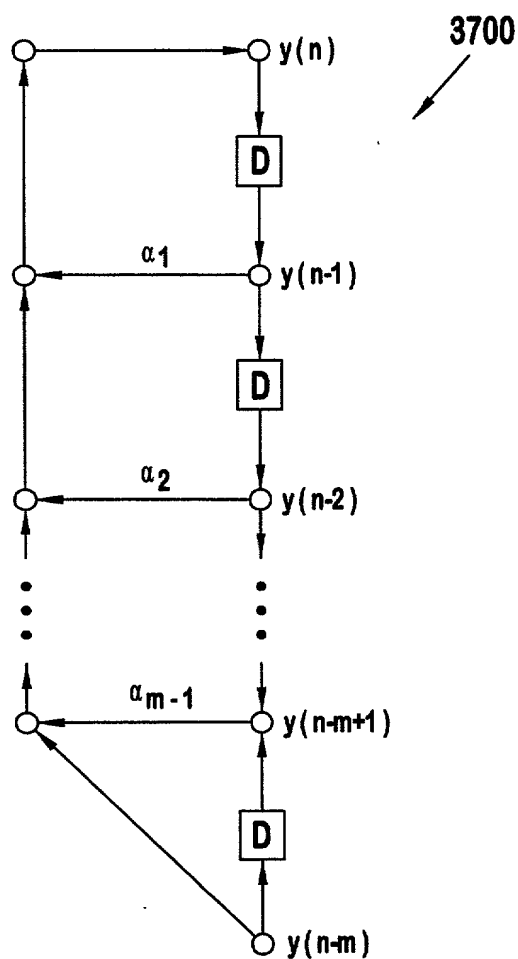
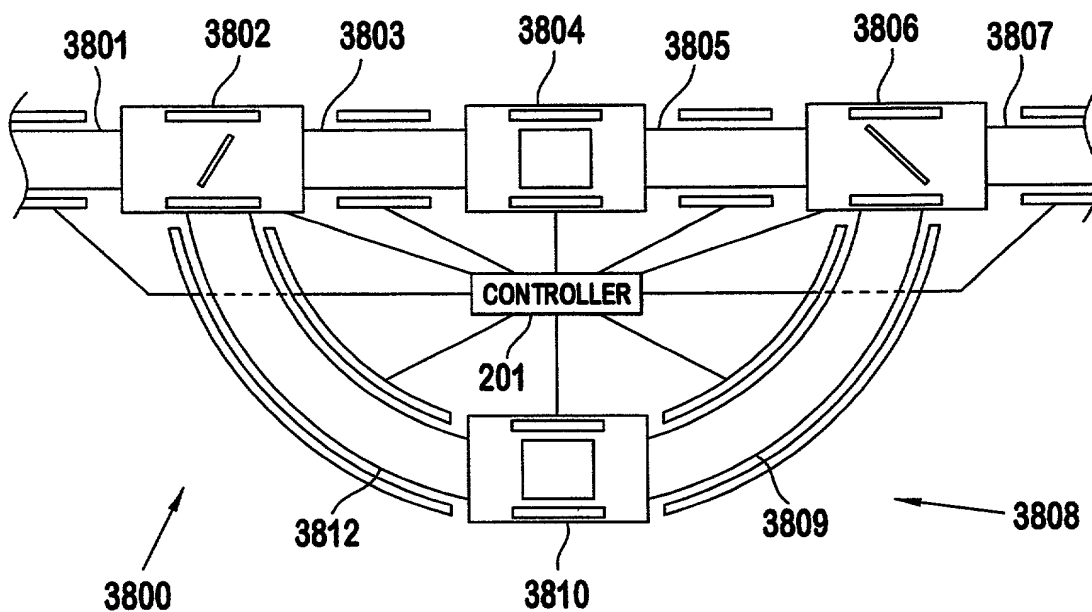


FIG. 38



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FIG. 39

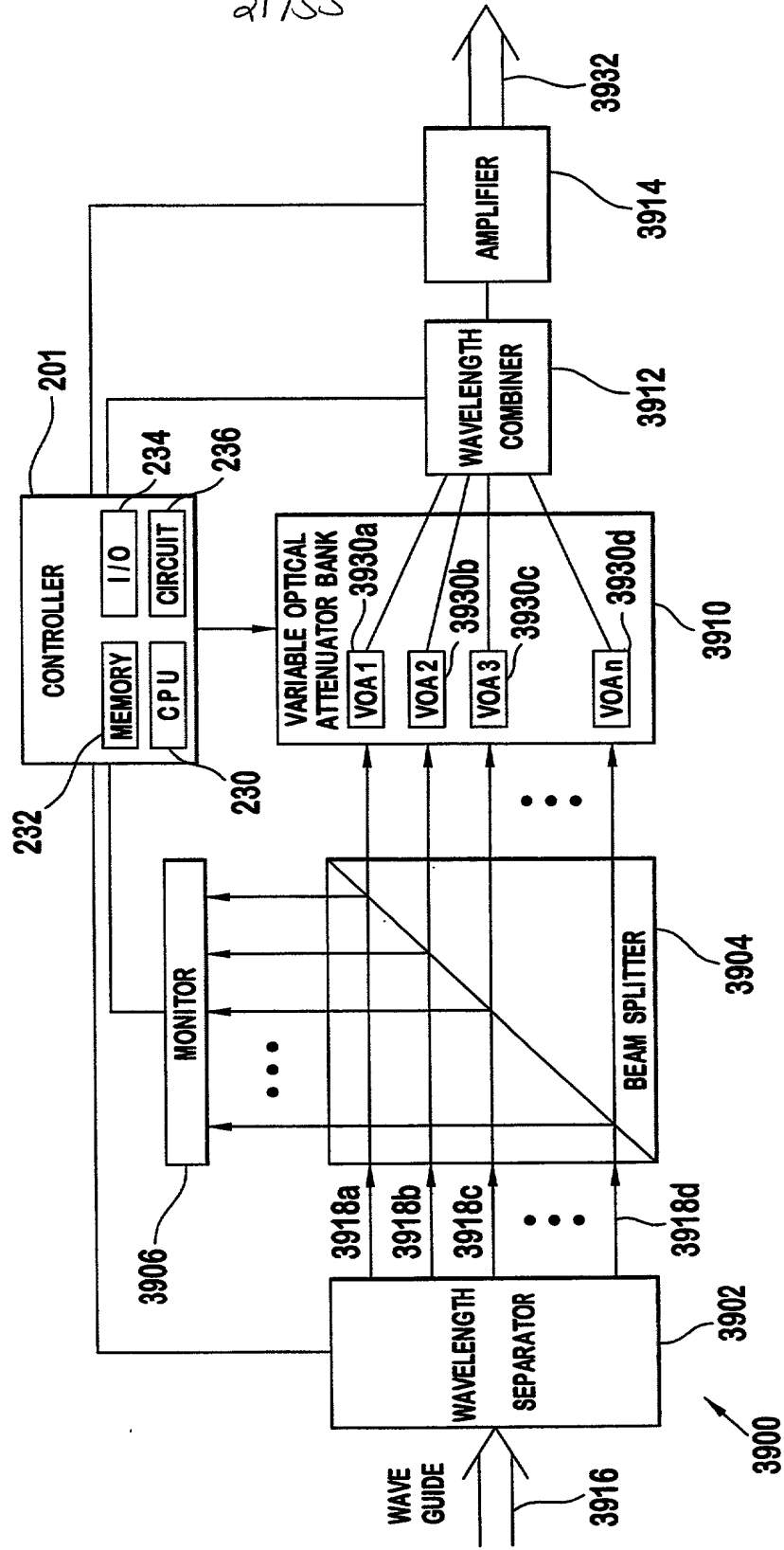


FIG. 40

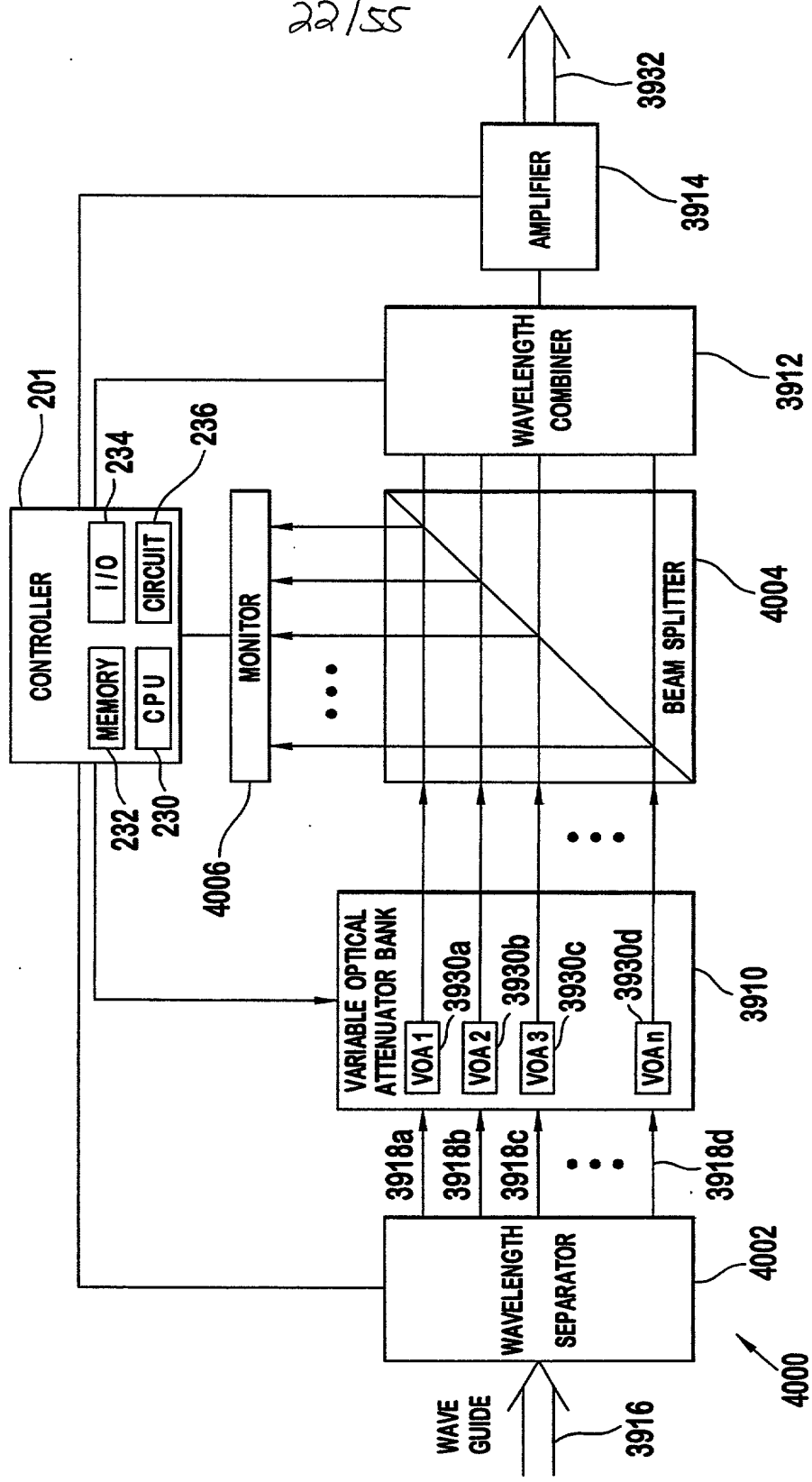
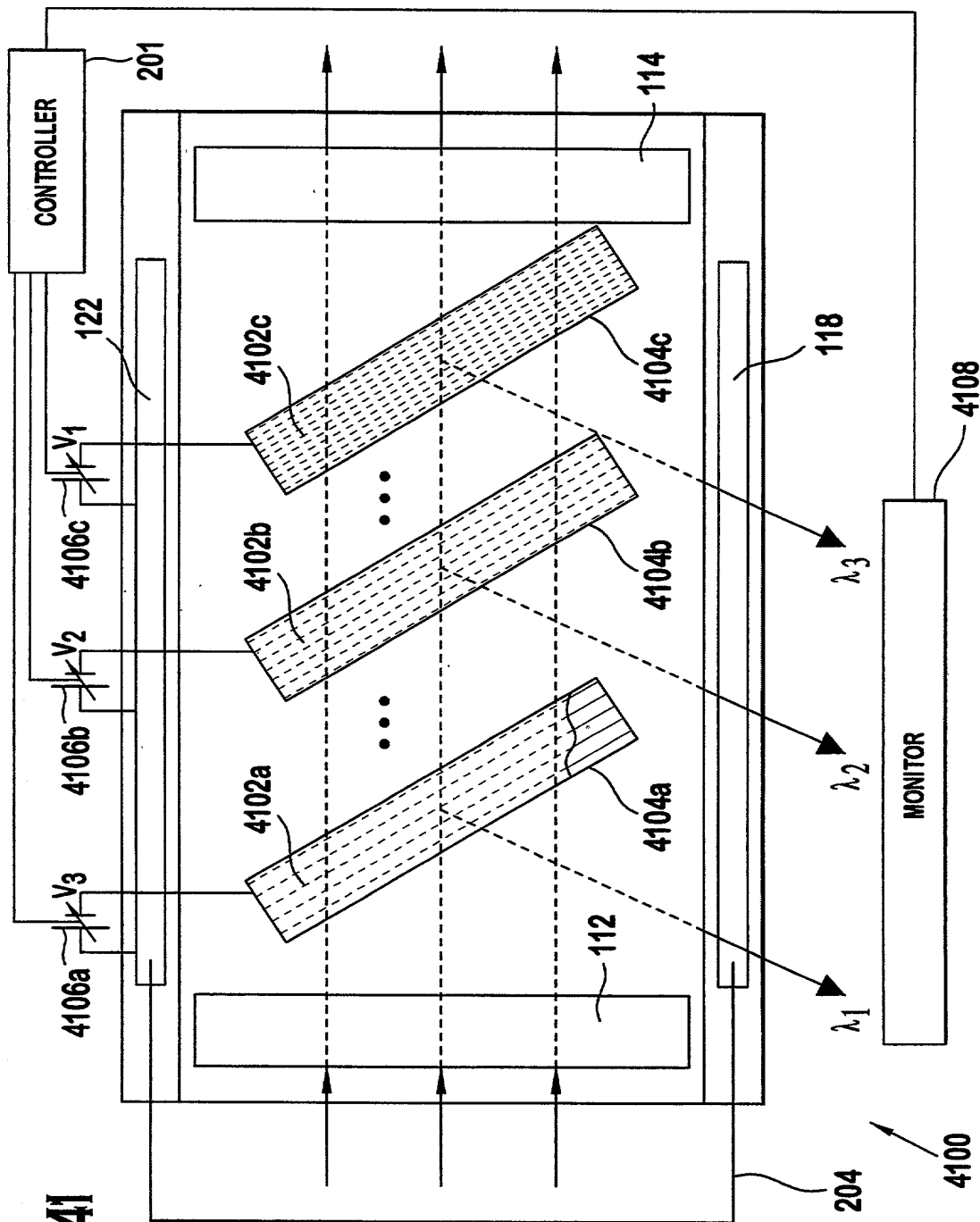


FIG. 41



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FIG. 42

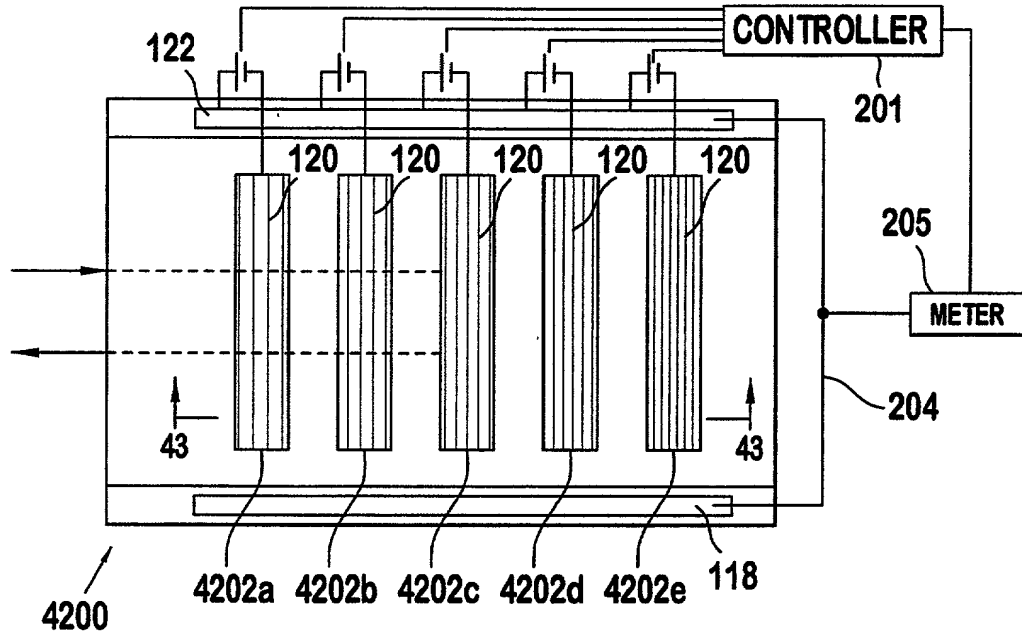
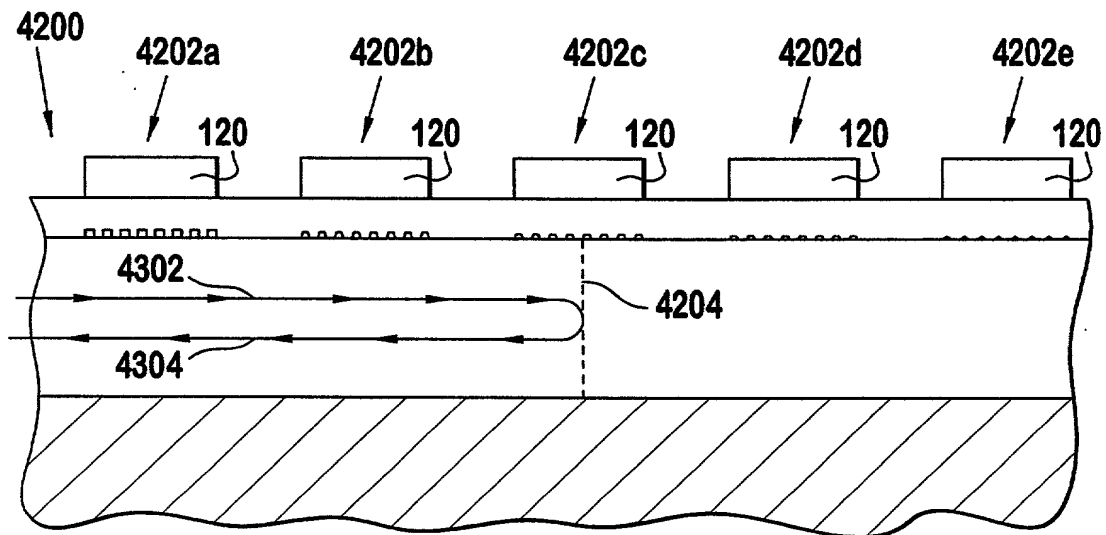
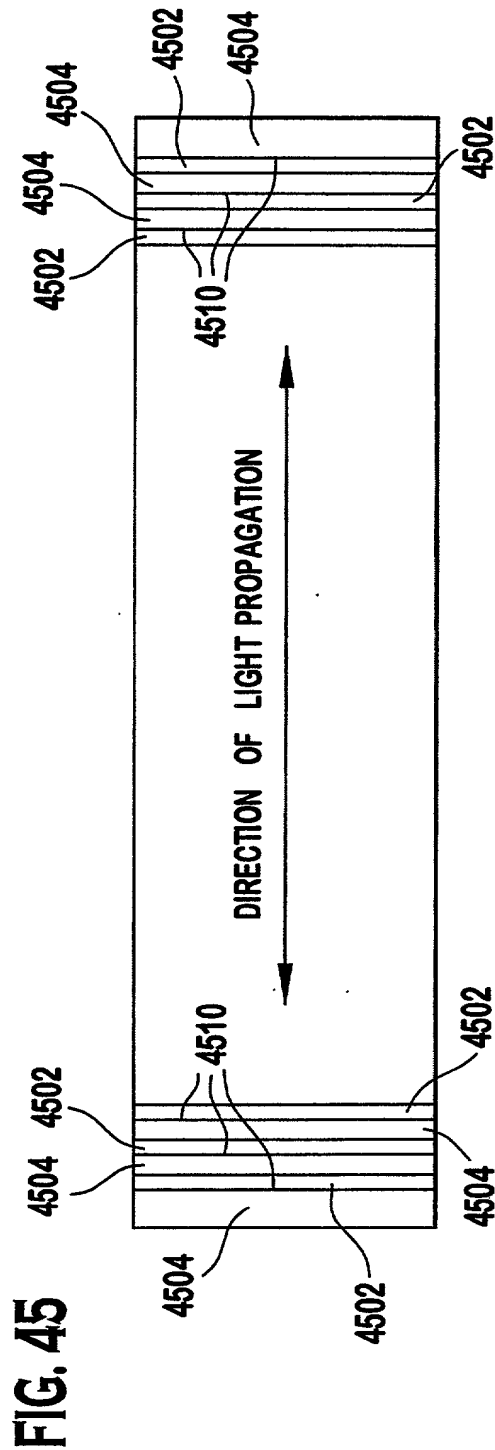
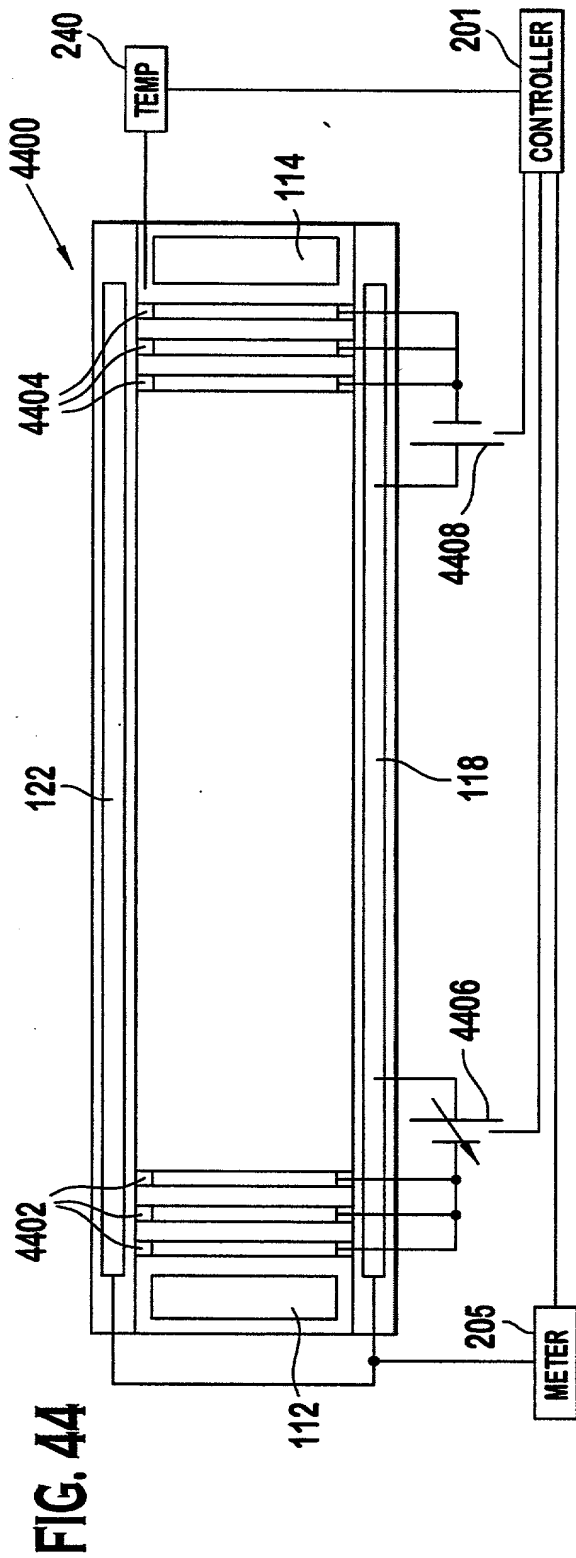


FIG. 43





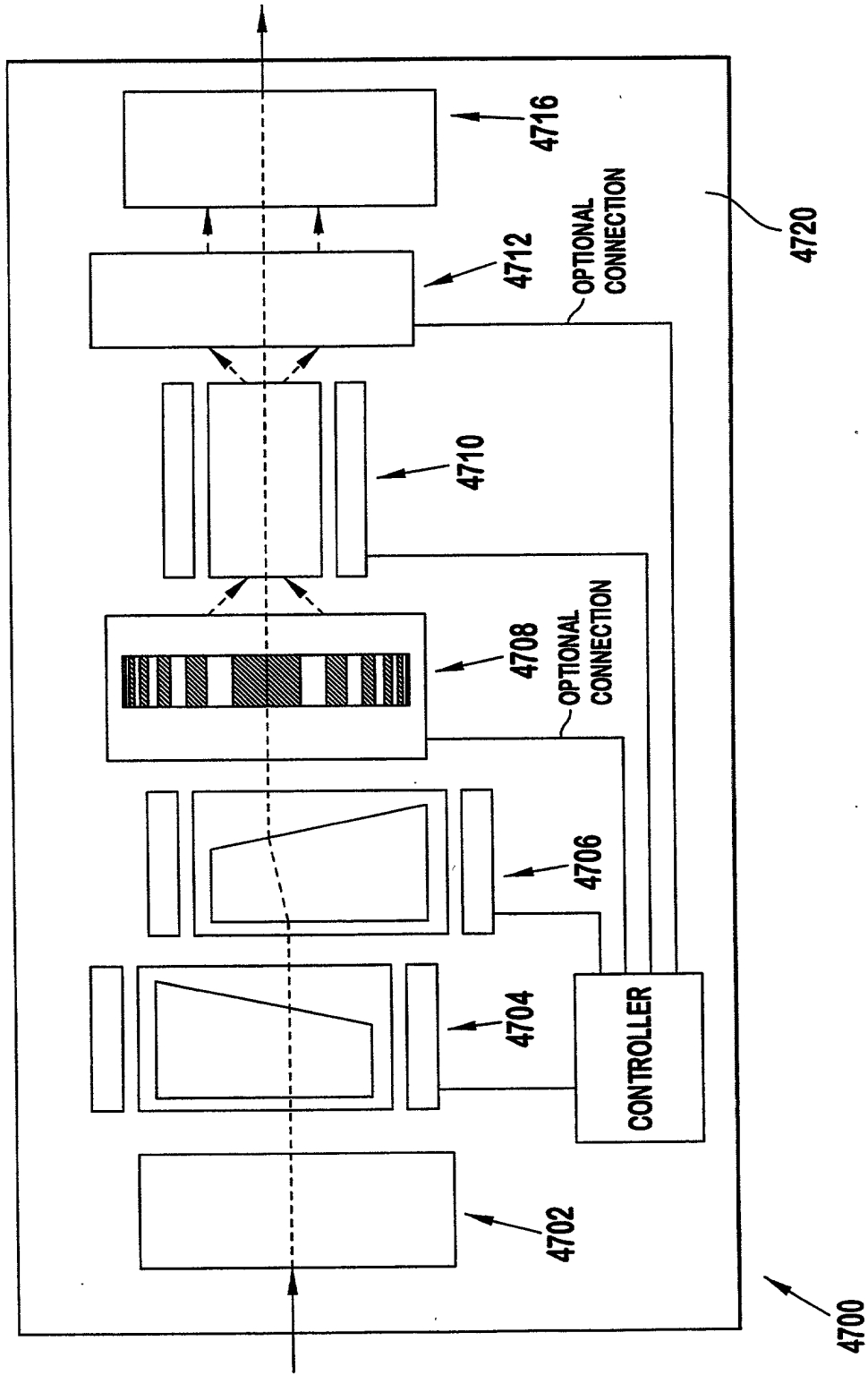


[illegible]

**CONTROLLER**

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FIG. 47



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FIG. 48

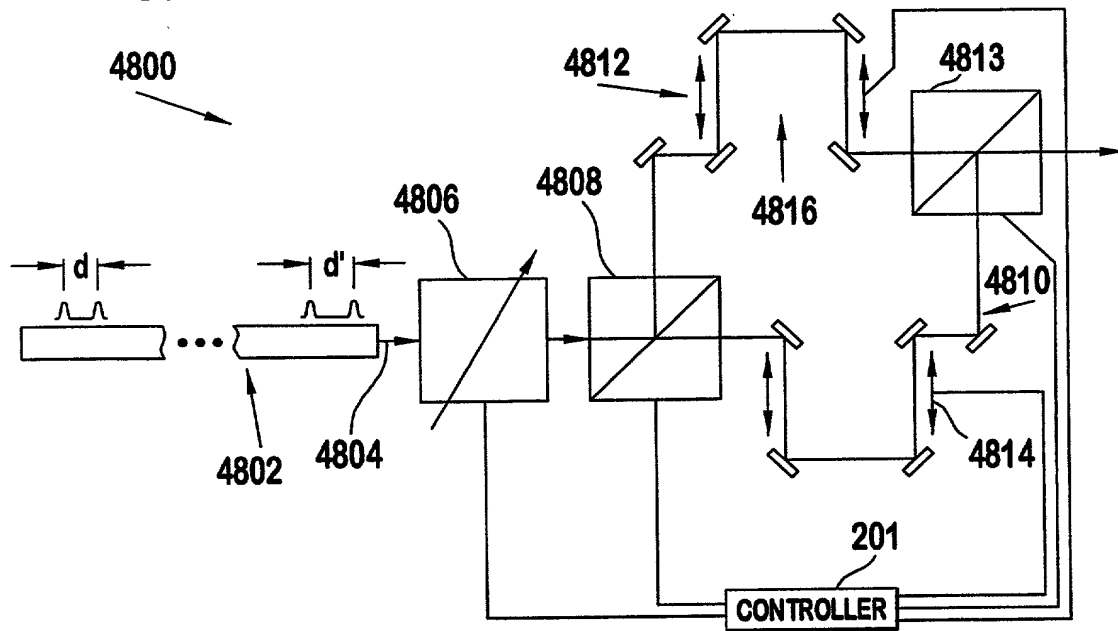
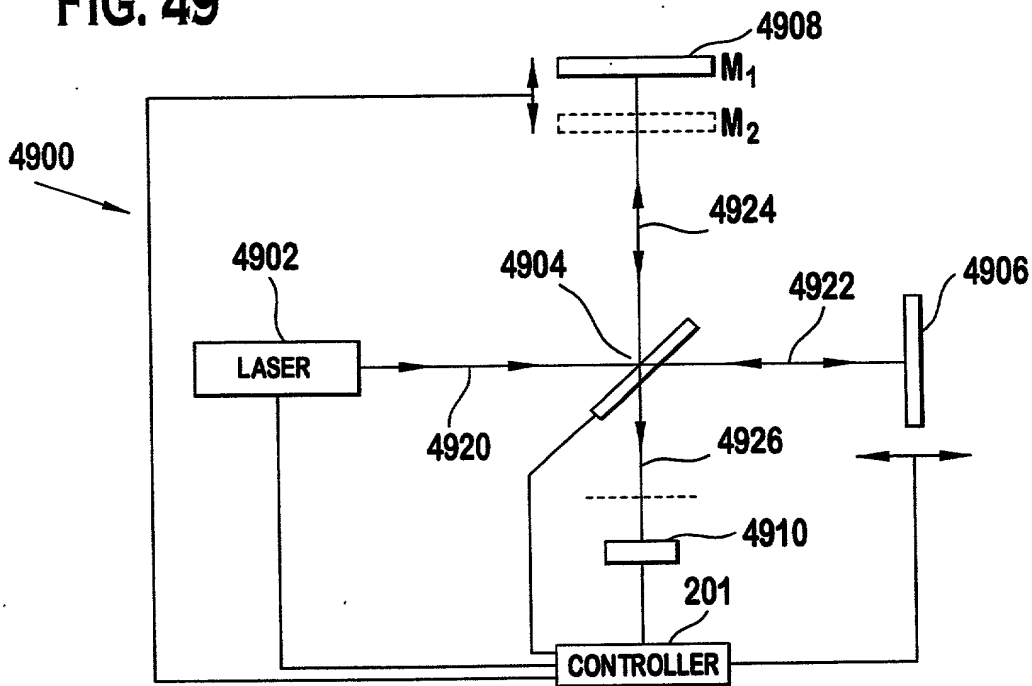


FIG. 49



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FIG. 50

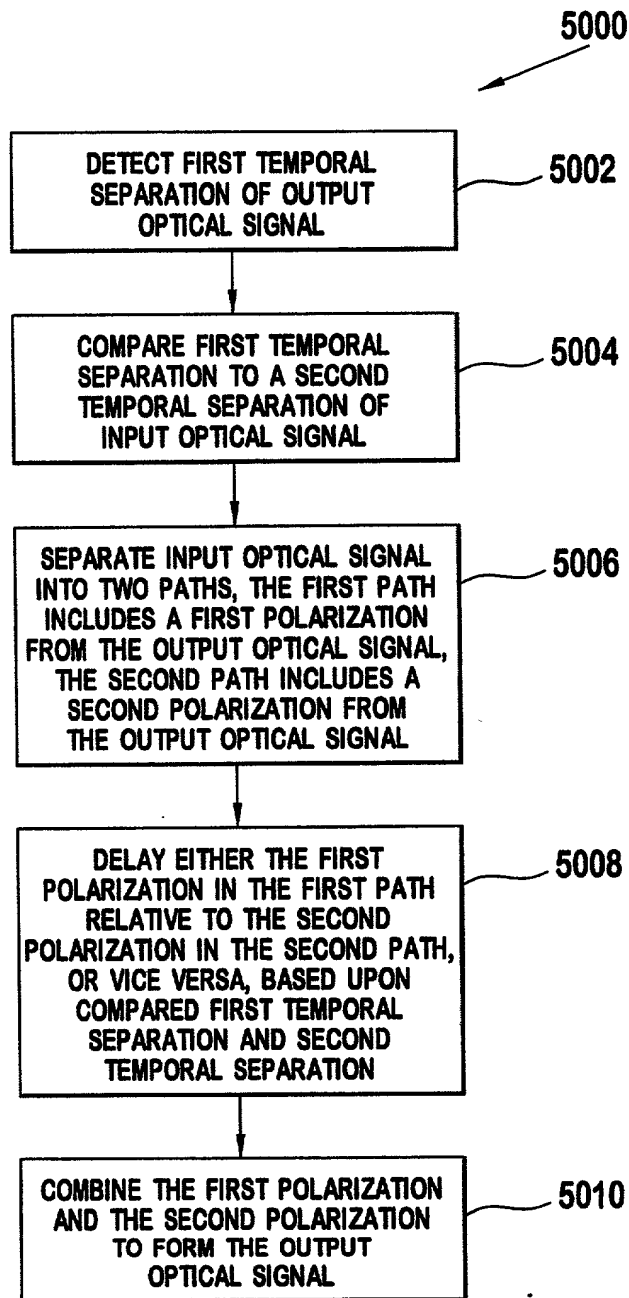


FIG. 51

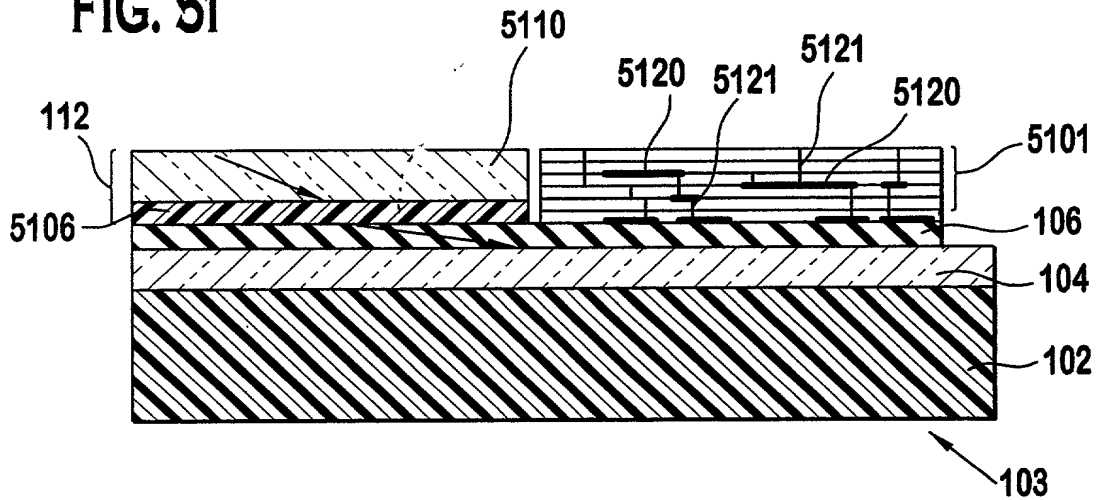


FIG. 52

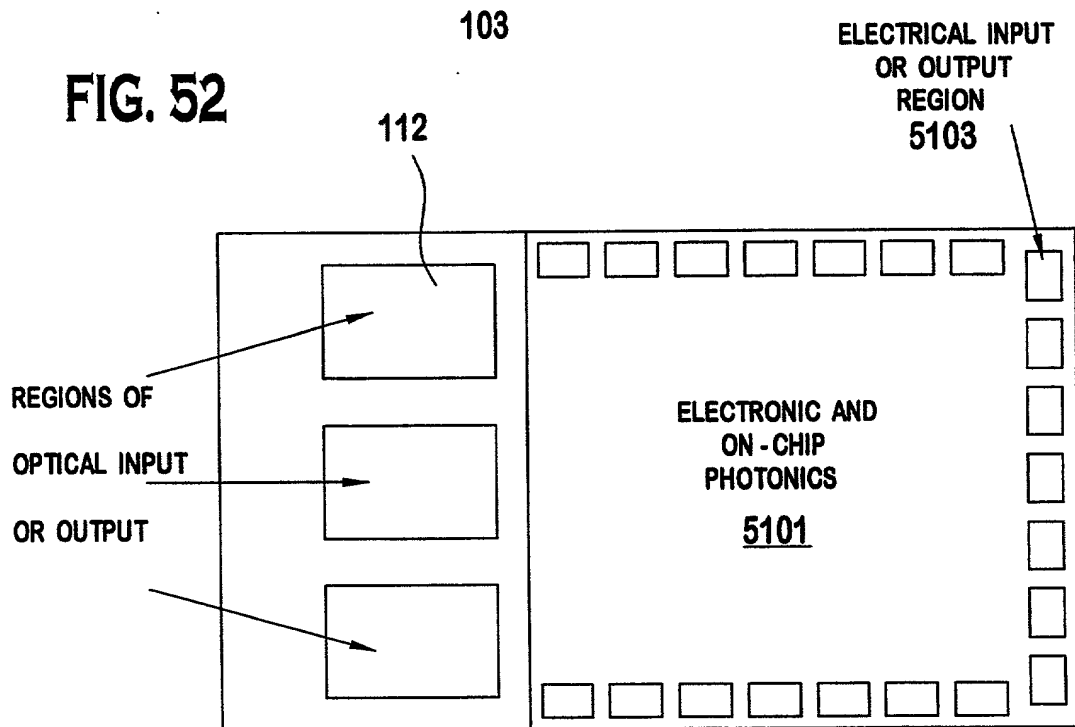


FIG. 53

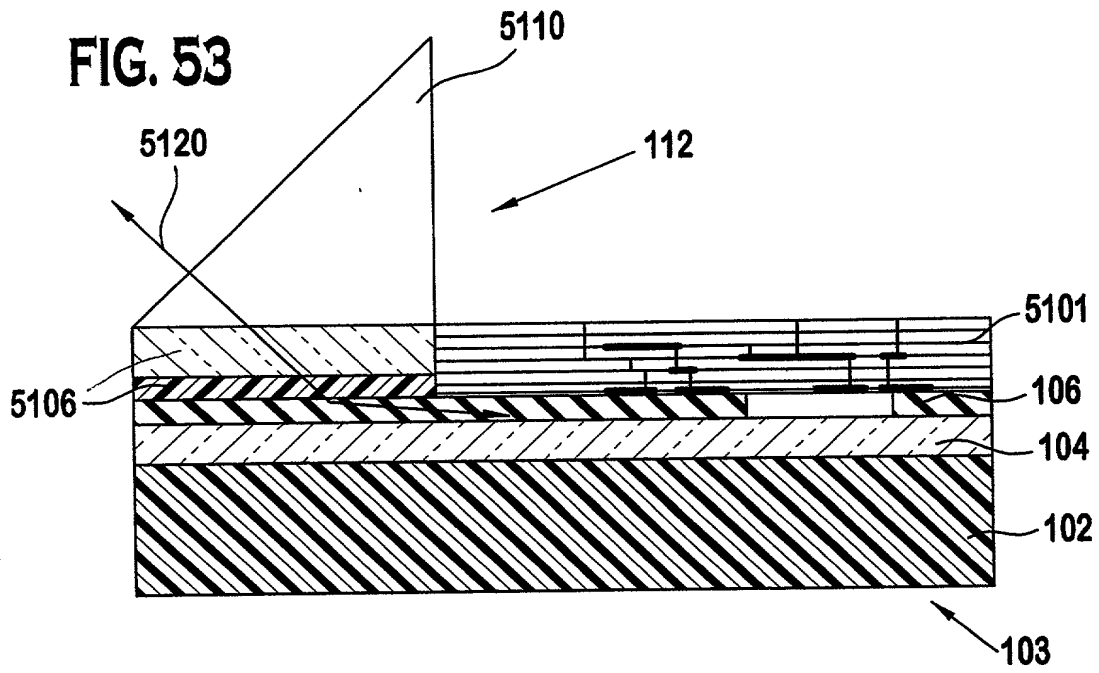


FIG. 54

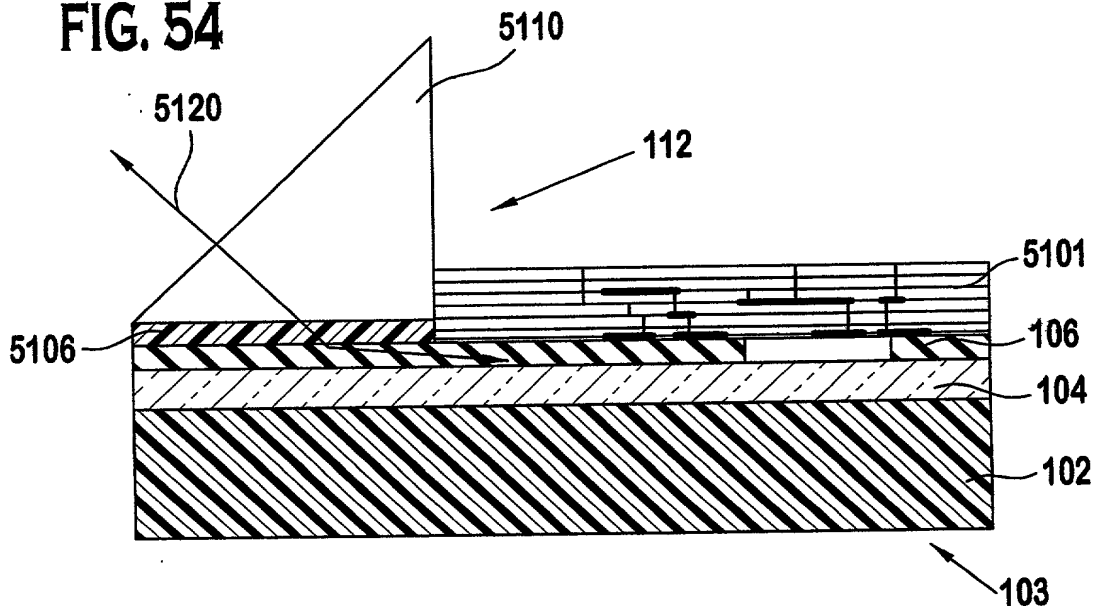


FIG. 55

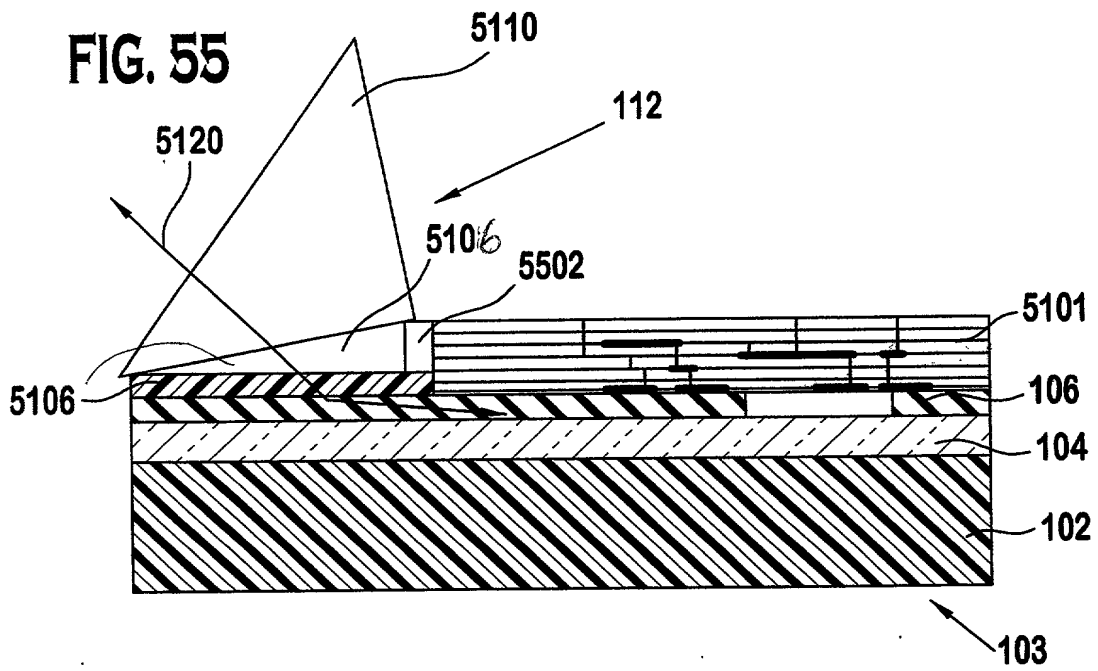


FIG. 56

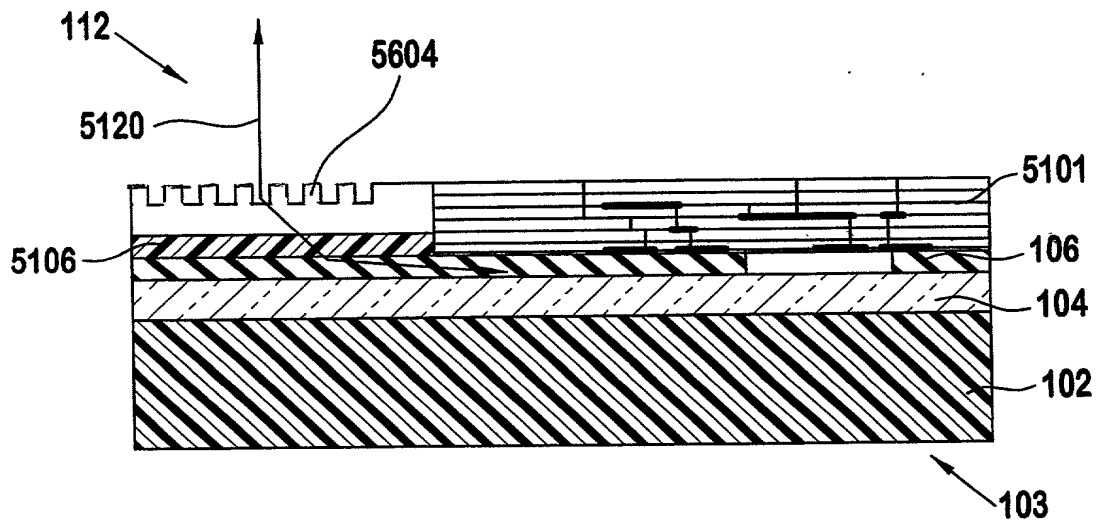




FIG. 57

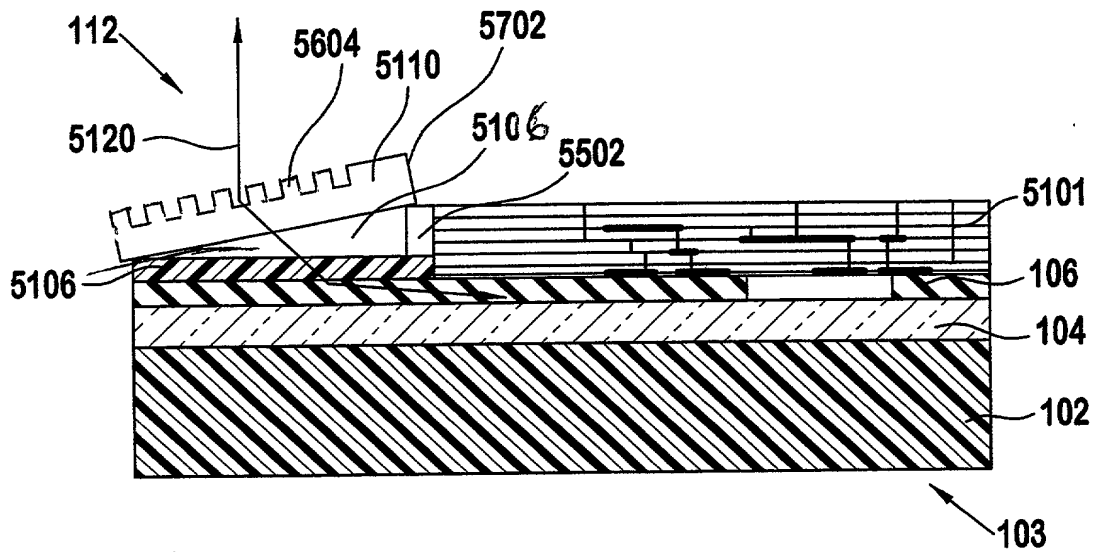
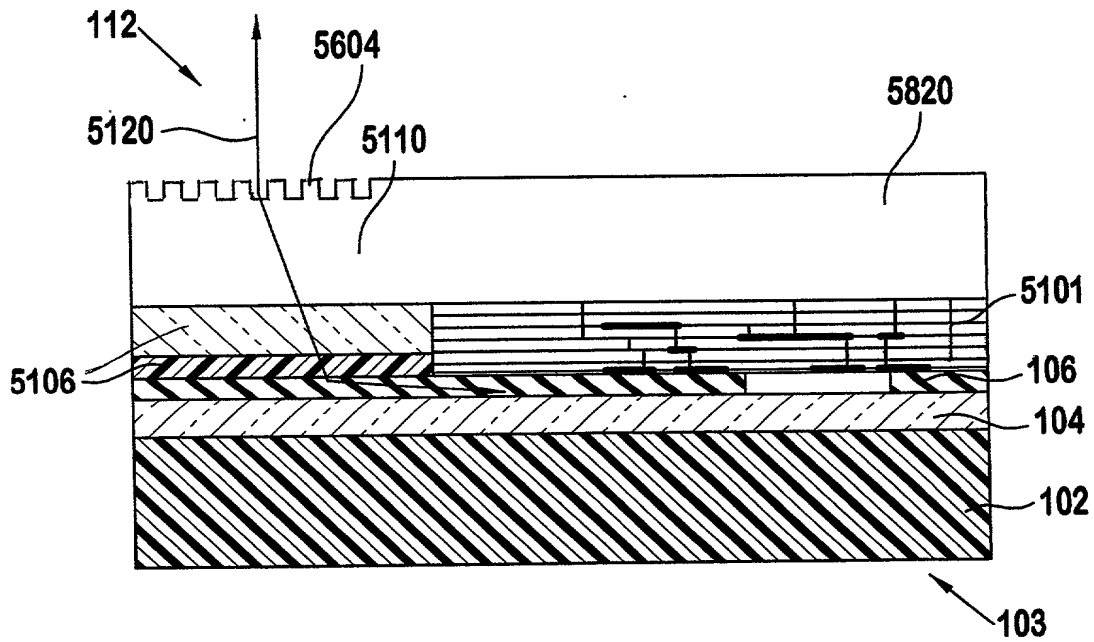
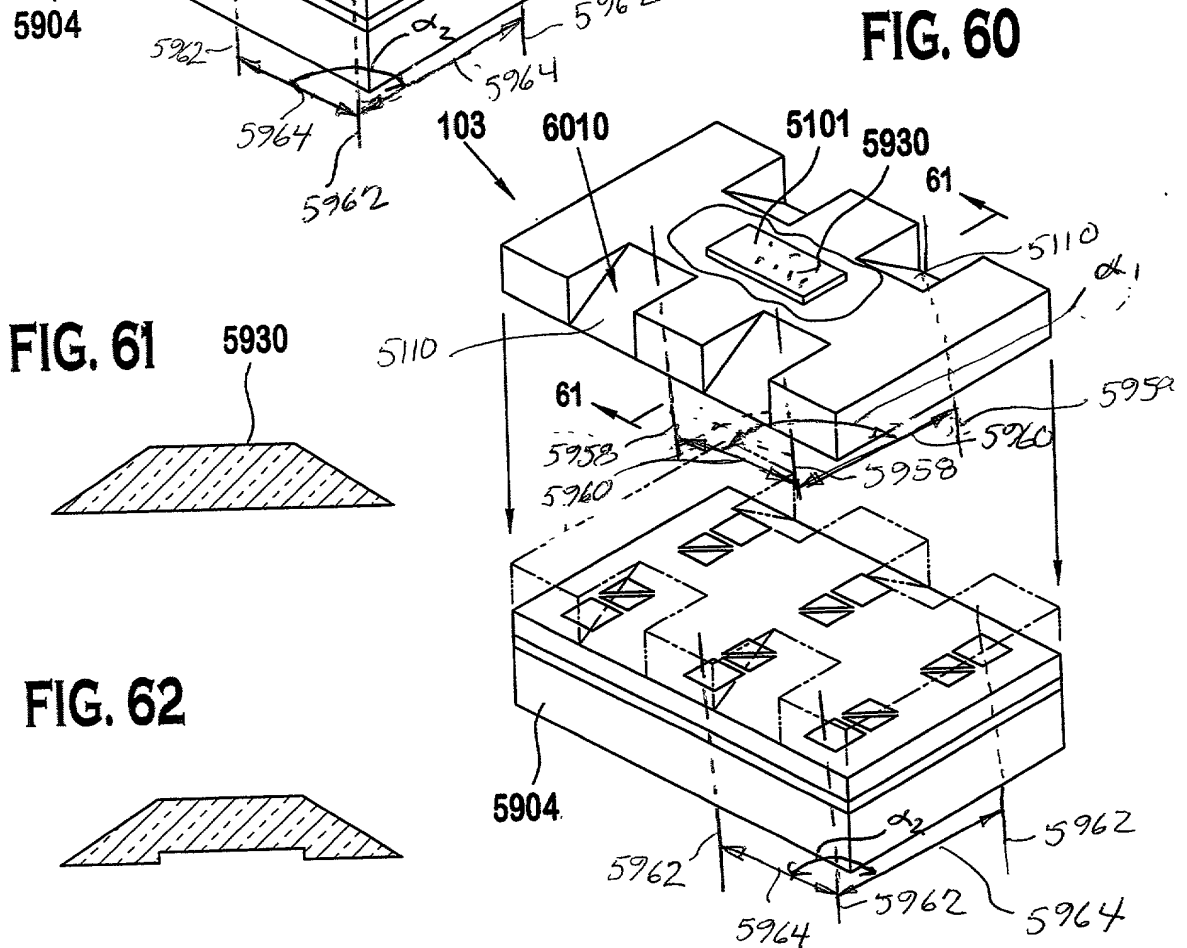
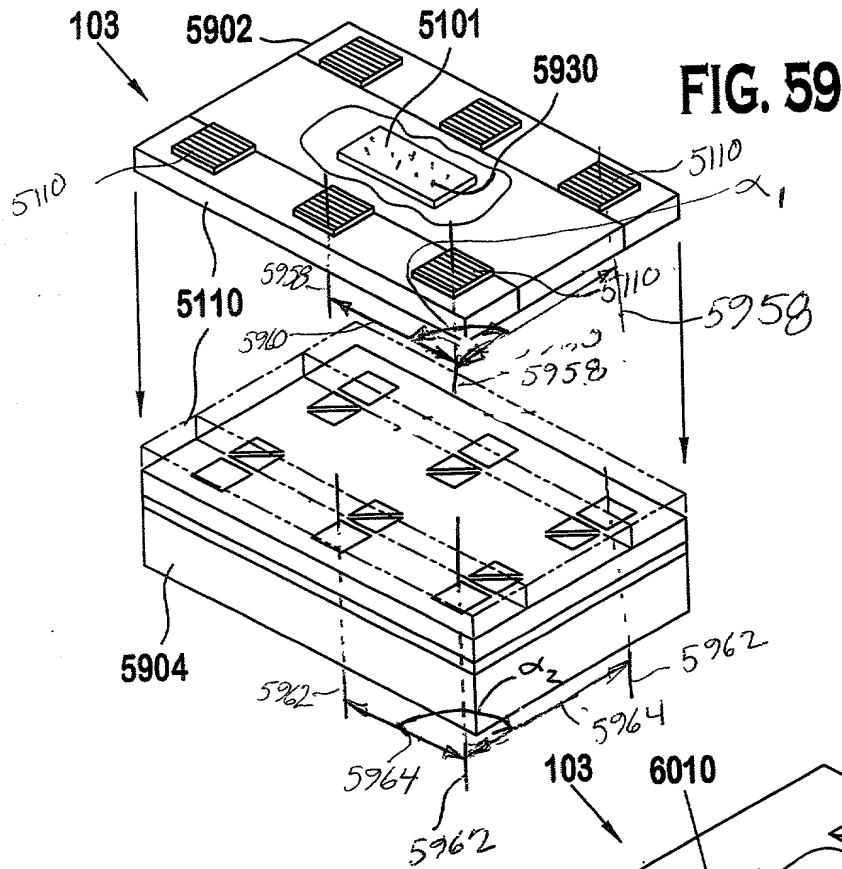


FIG. 58



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FIG. 63A

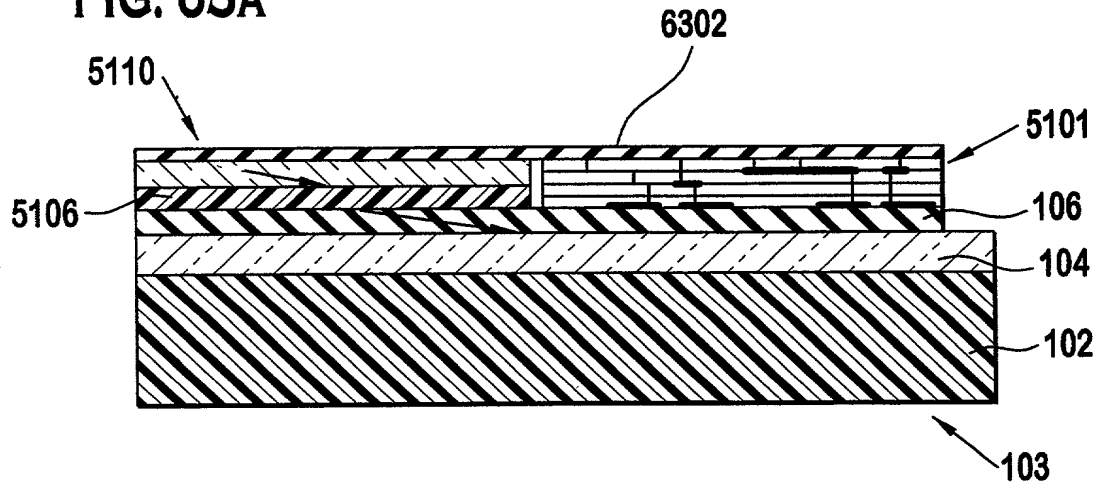
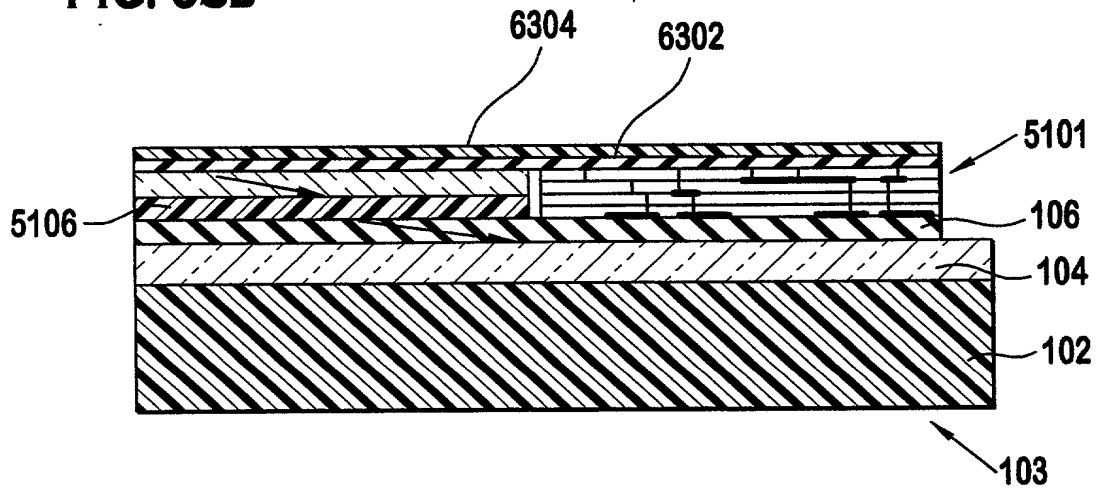


FIG. 63B



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FIG. 63c

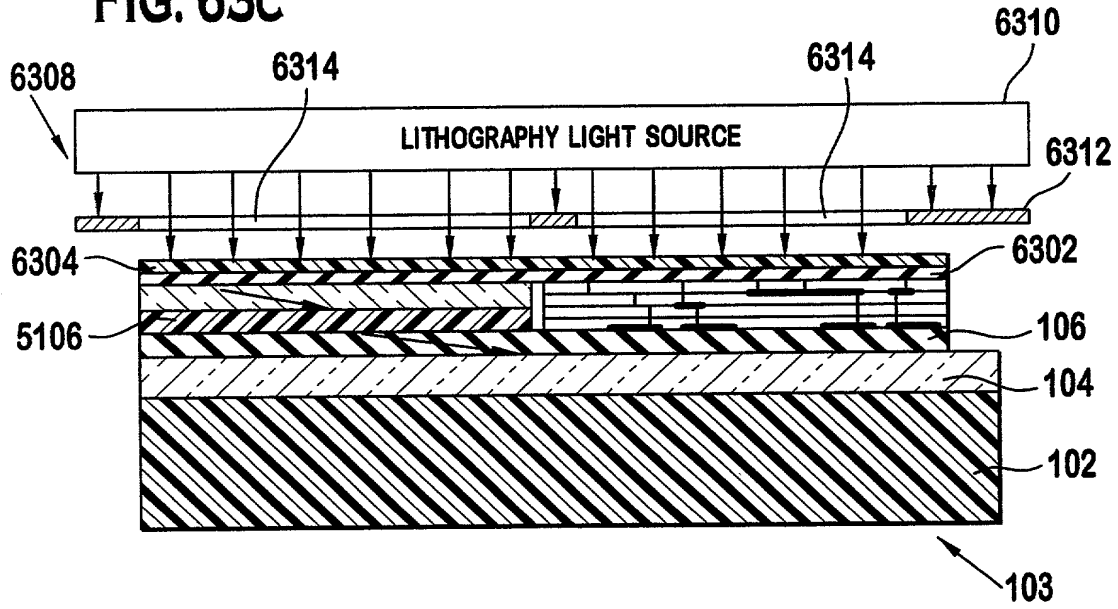
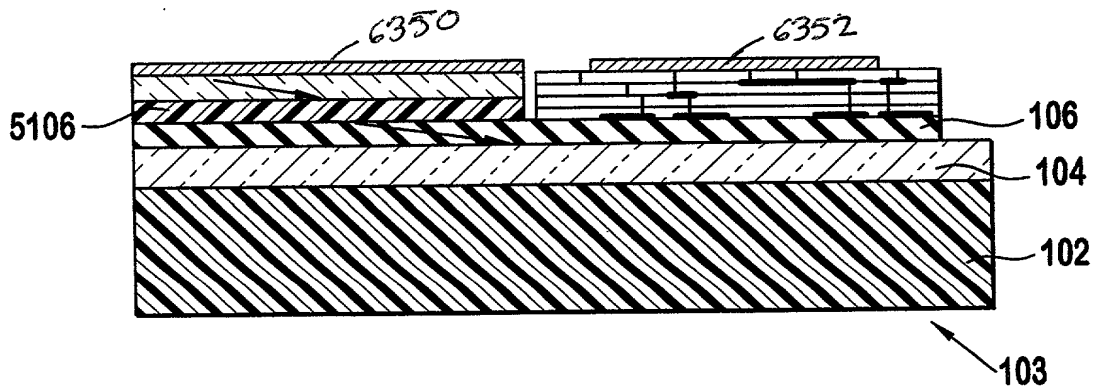


FIG. 63D



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FIG. 64

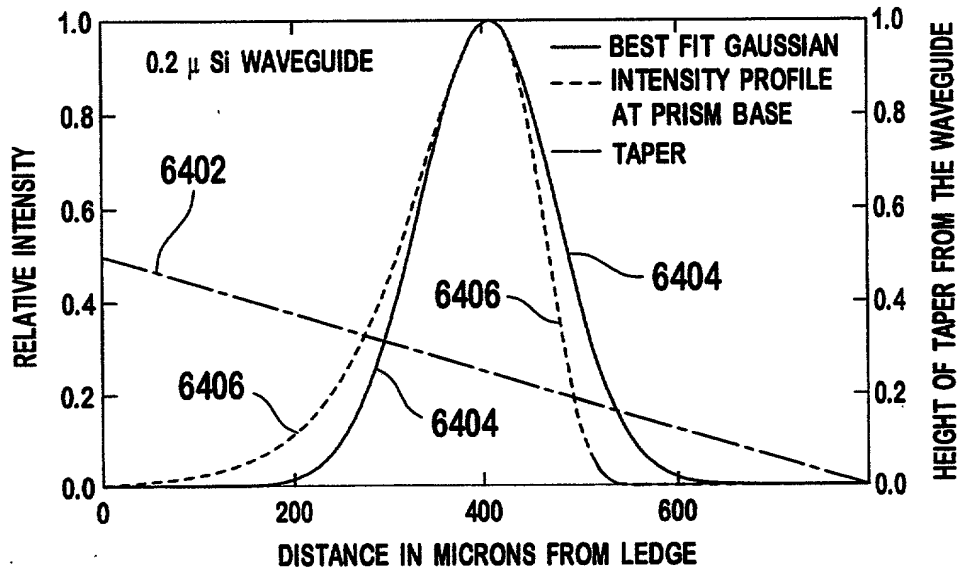
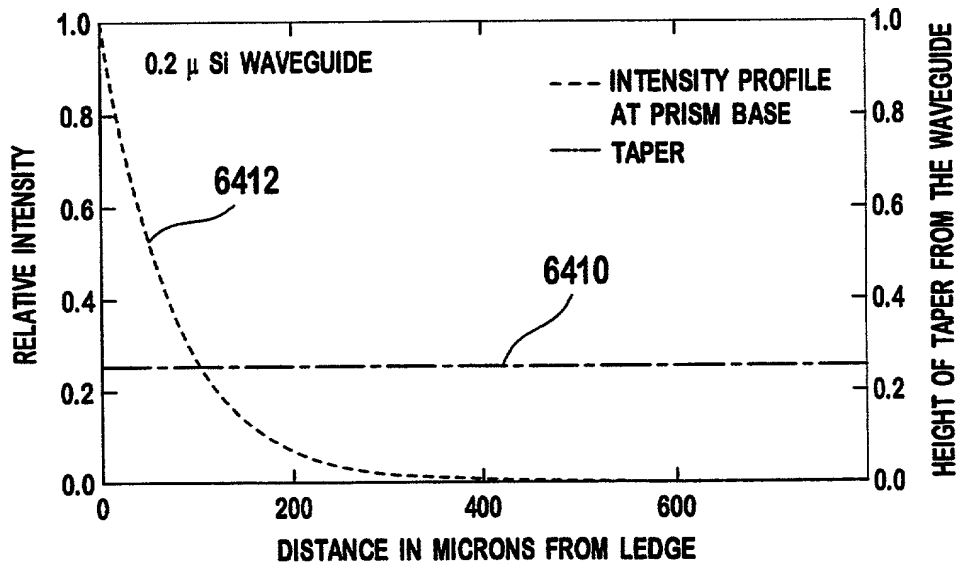


FIG. 65



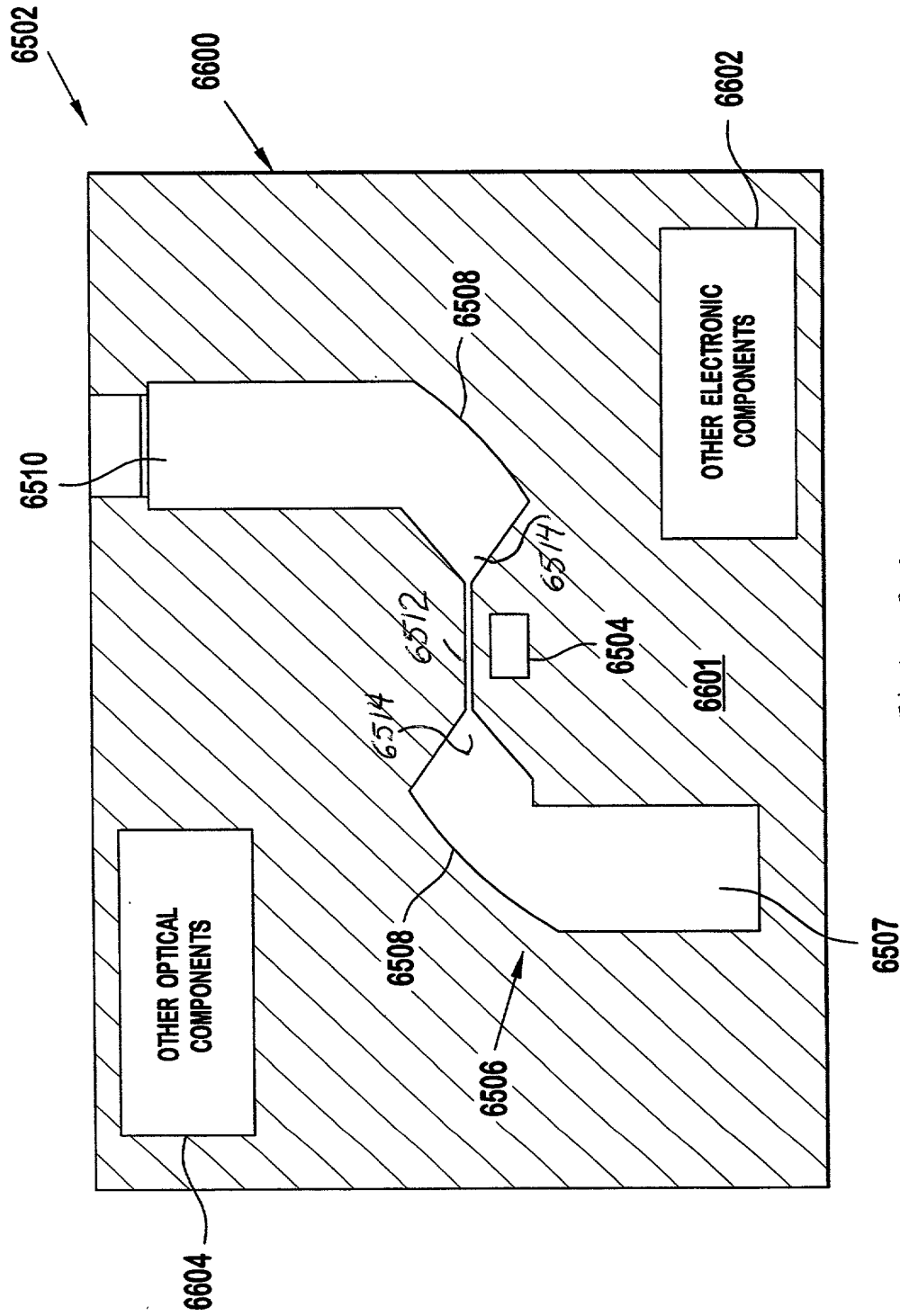


FIG. 66

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FIG. 67

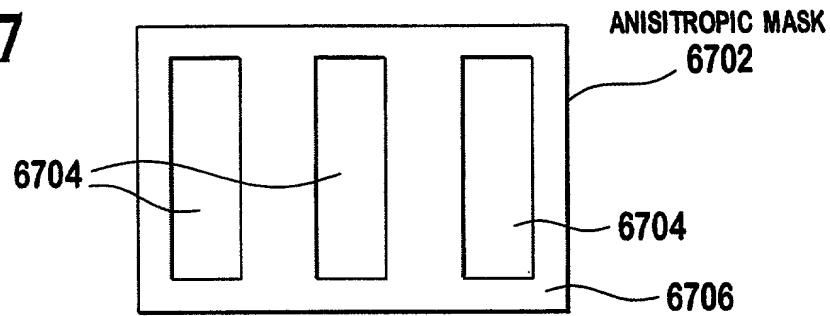


FIG. 68A



FIG. 68B

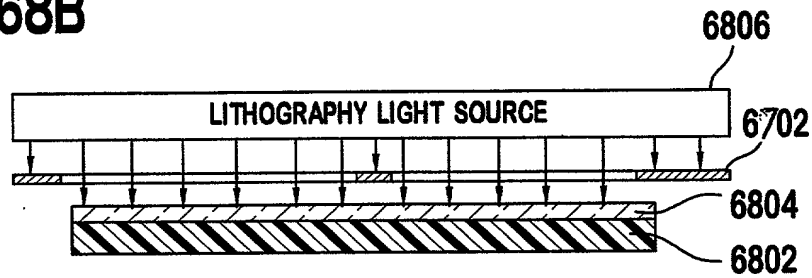
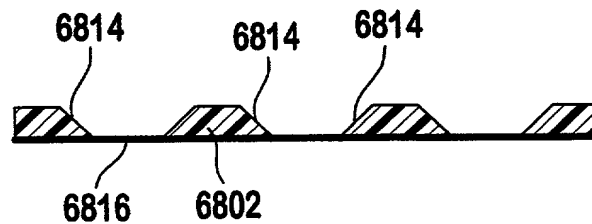


FIG. 68C



FIG. 68D



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FIG. 69

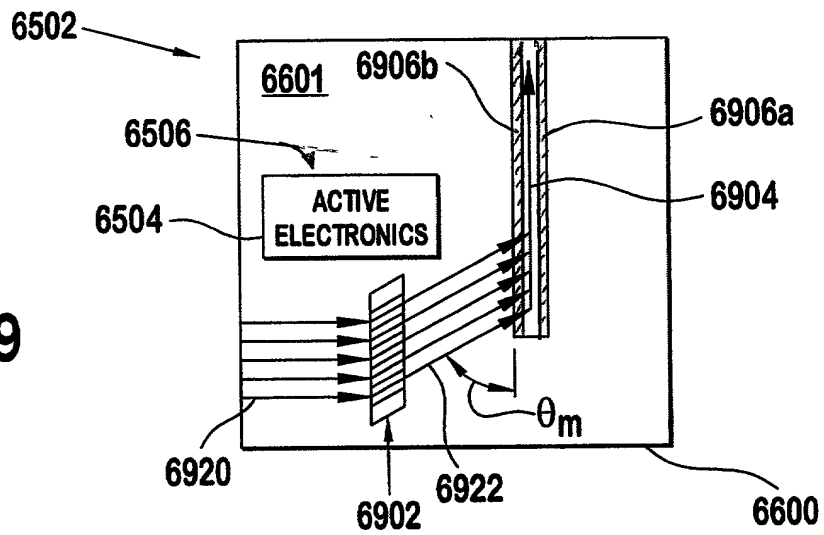


FIG. 70

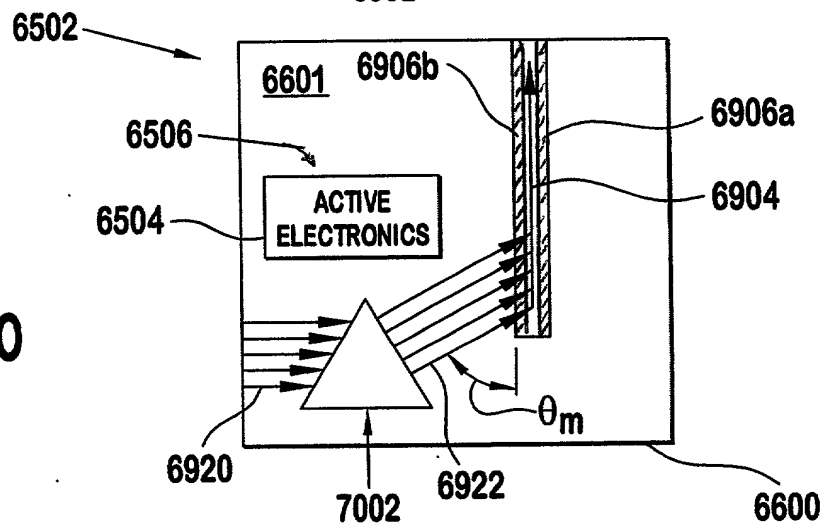
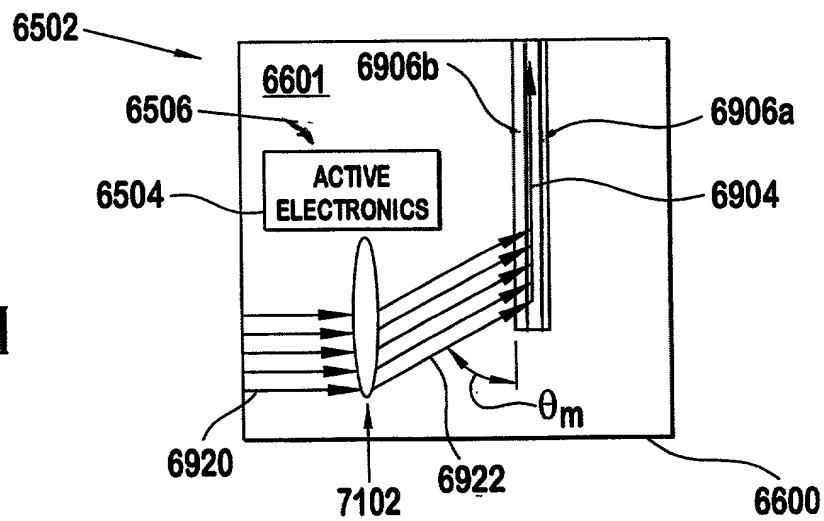


FIG. 71





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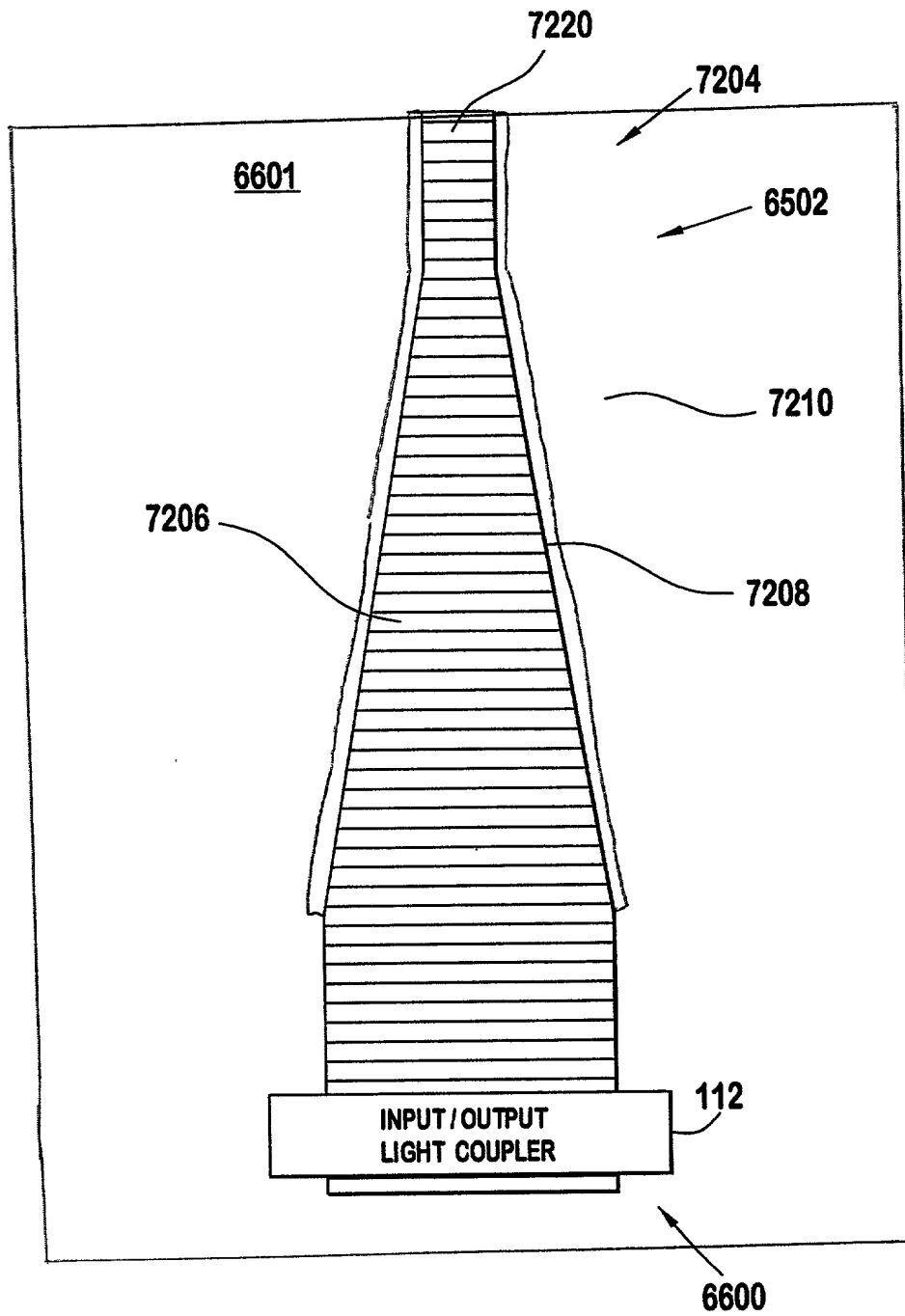


FIG. 72

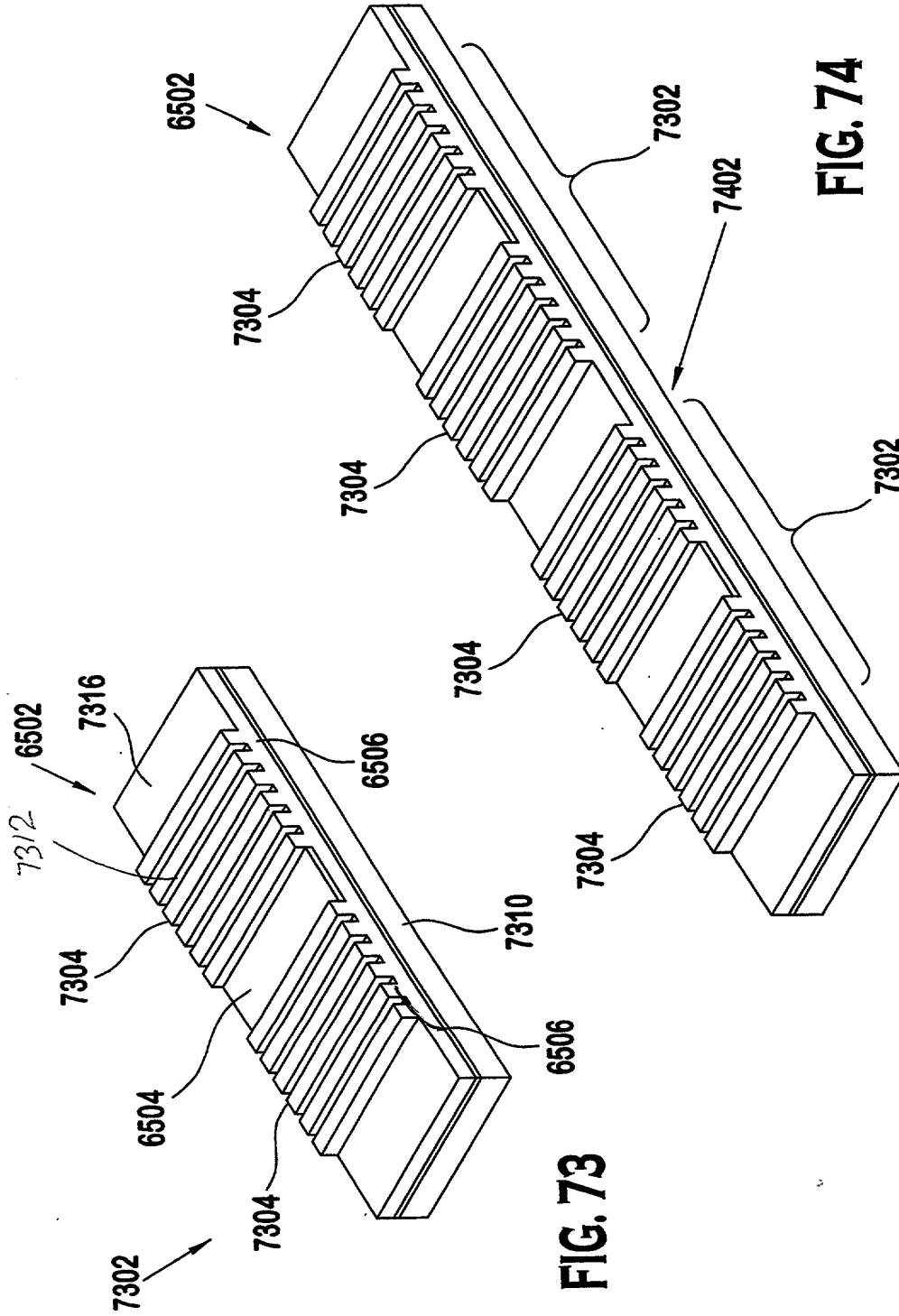
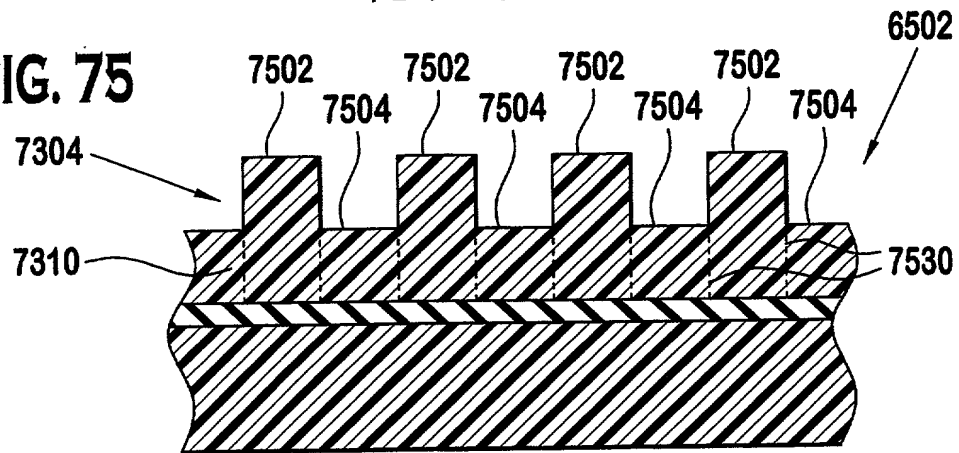


FIG. 73

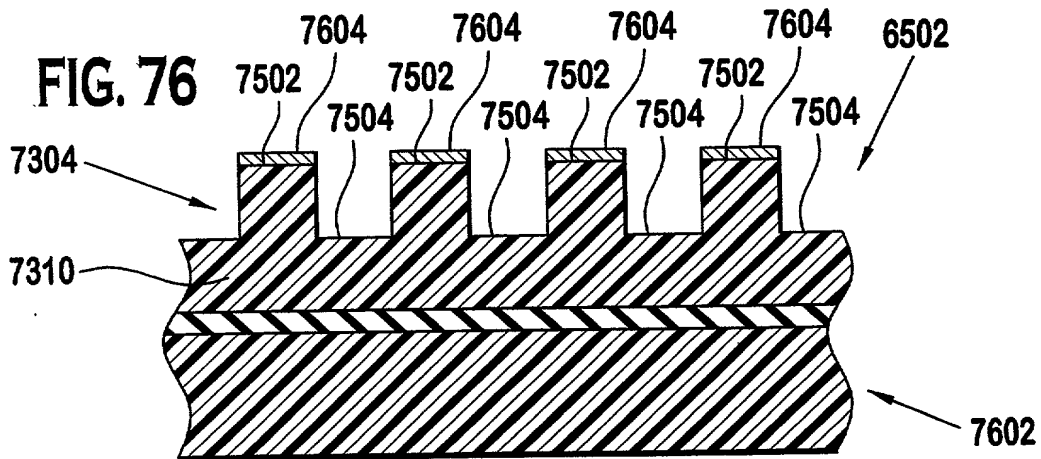
FIG. 74

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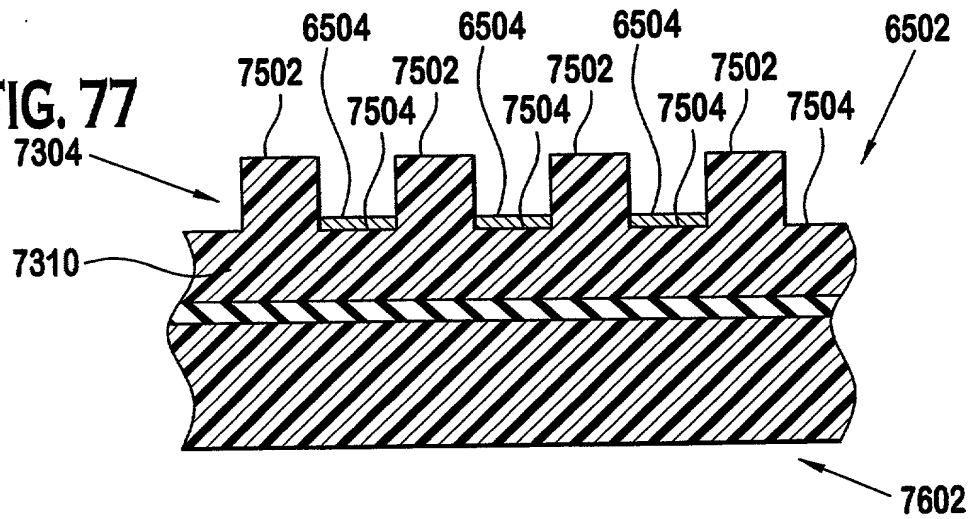
**FIG. 75**



**FIG. 76**



**FIG. 77**



40078203.02102

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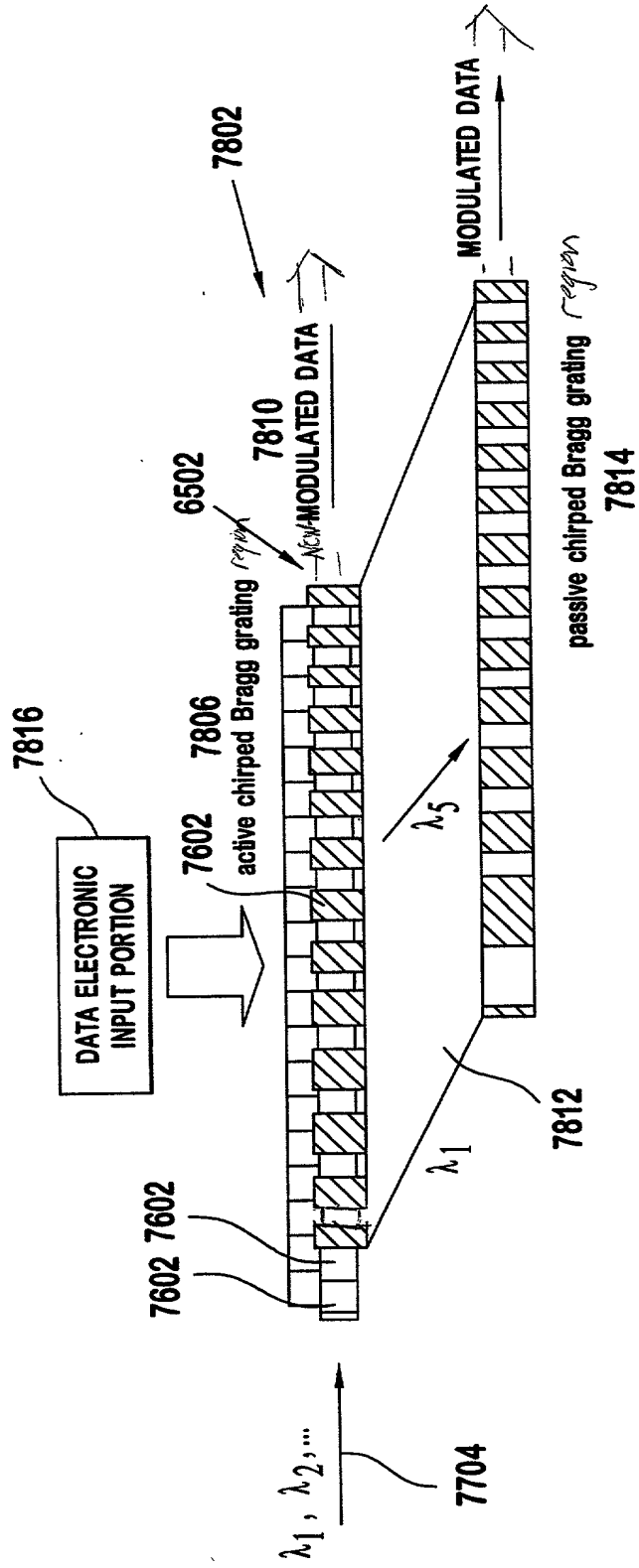
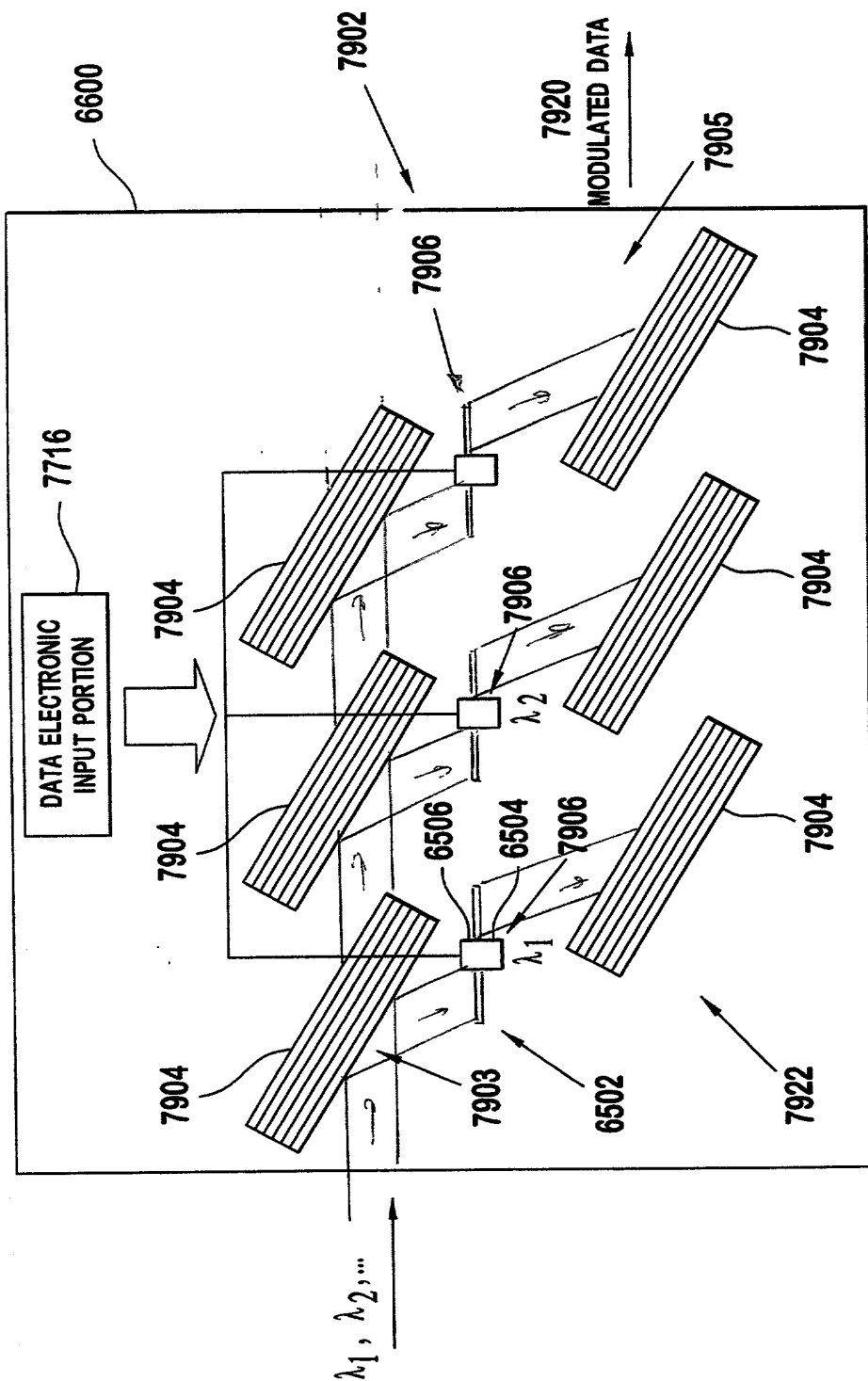


FIG. 78



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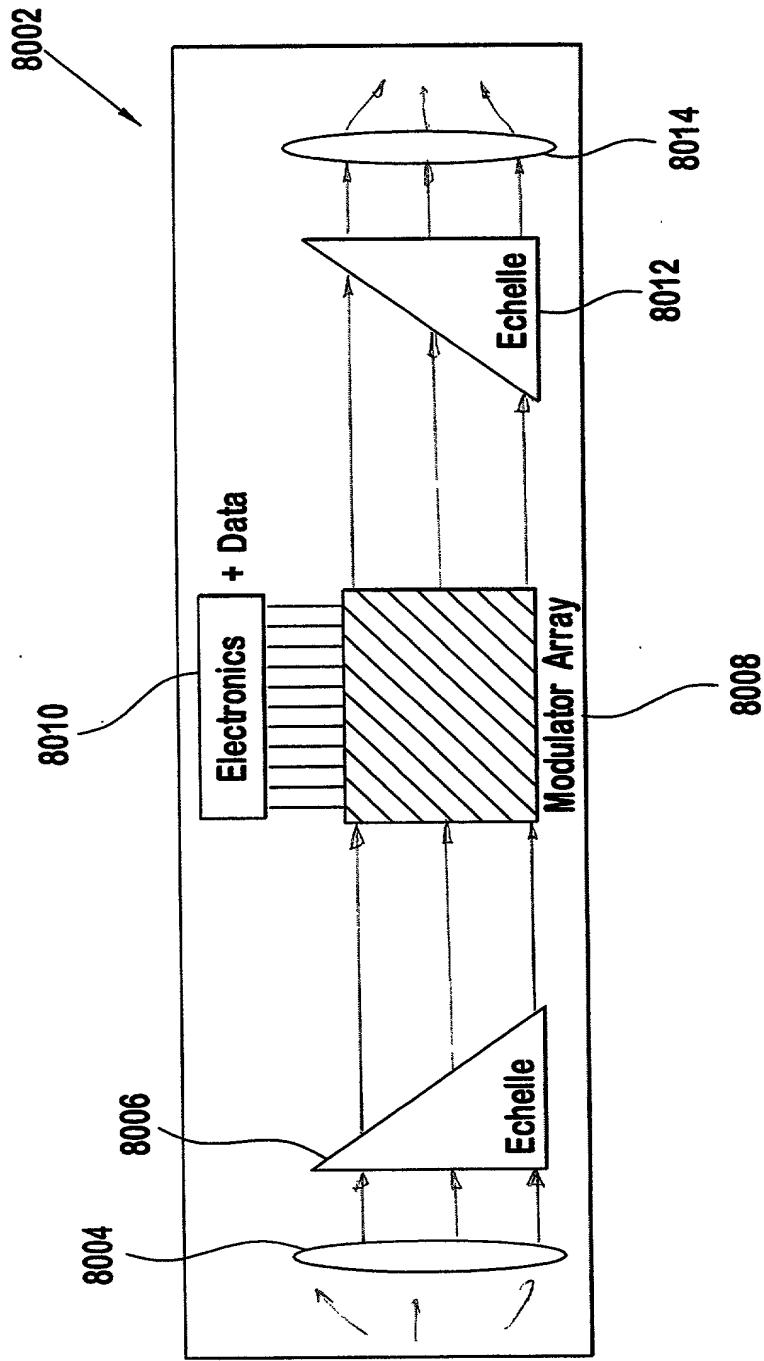


FIG. 80

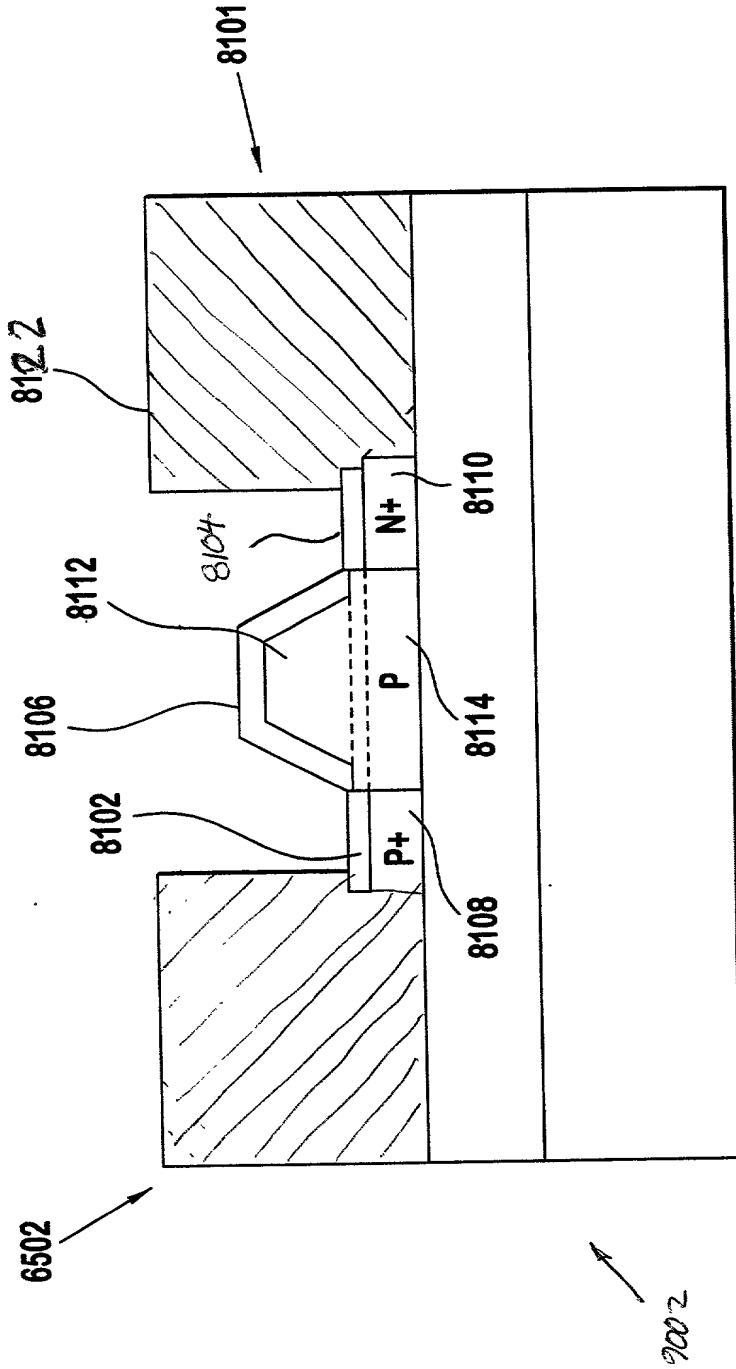
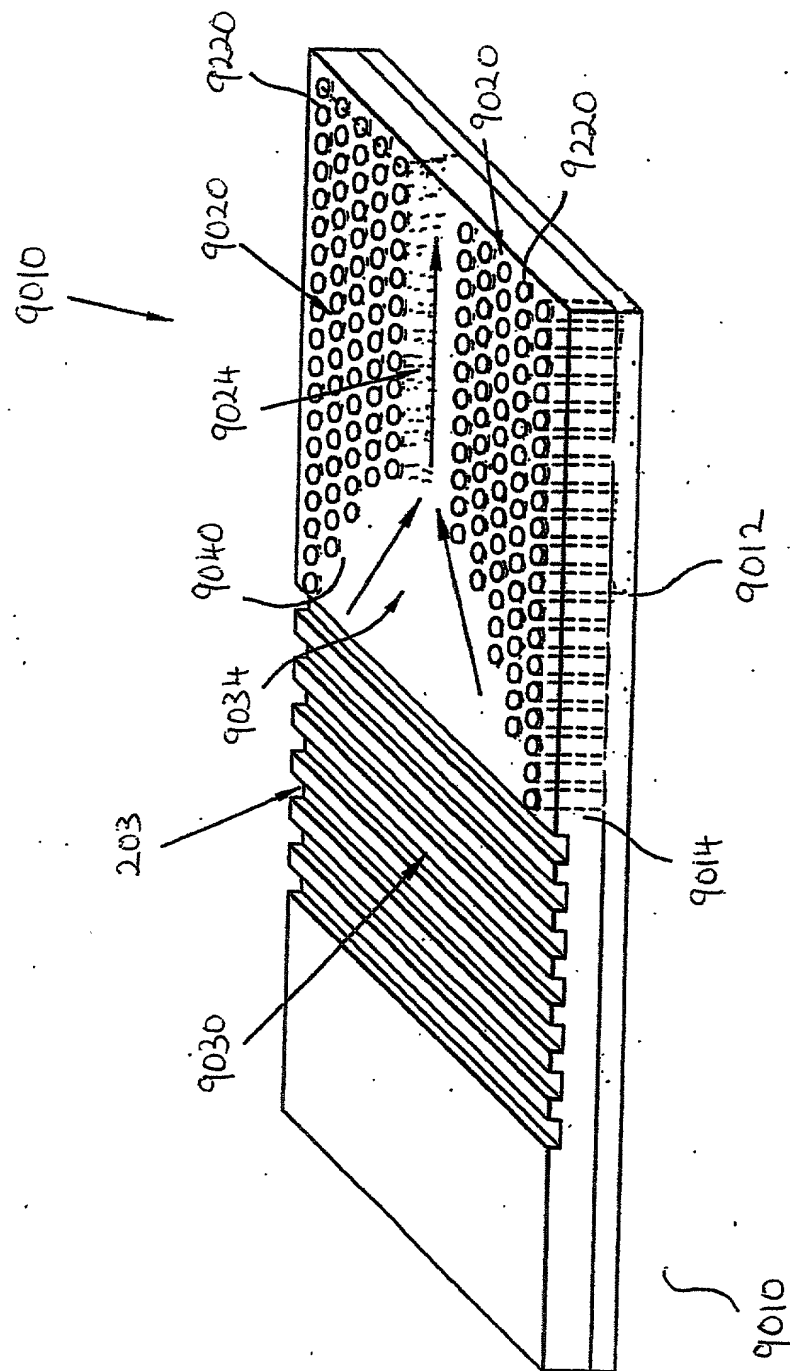


FIG. 81





FIG. 83



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FIG. 84

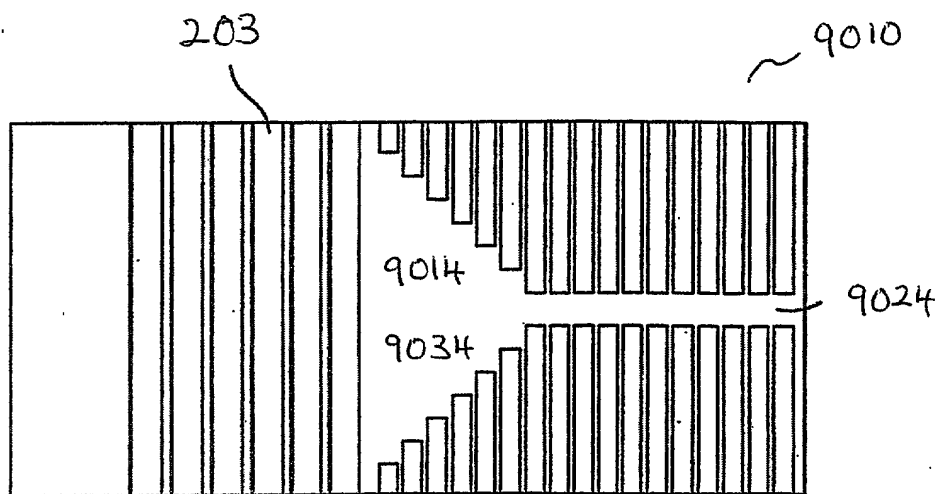


FIG. 85

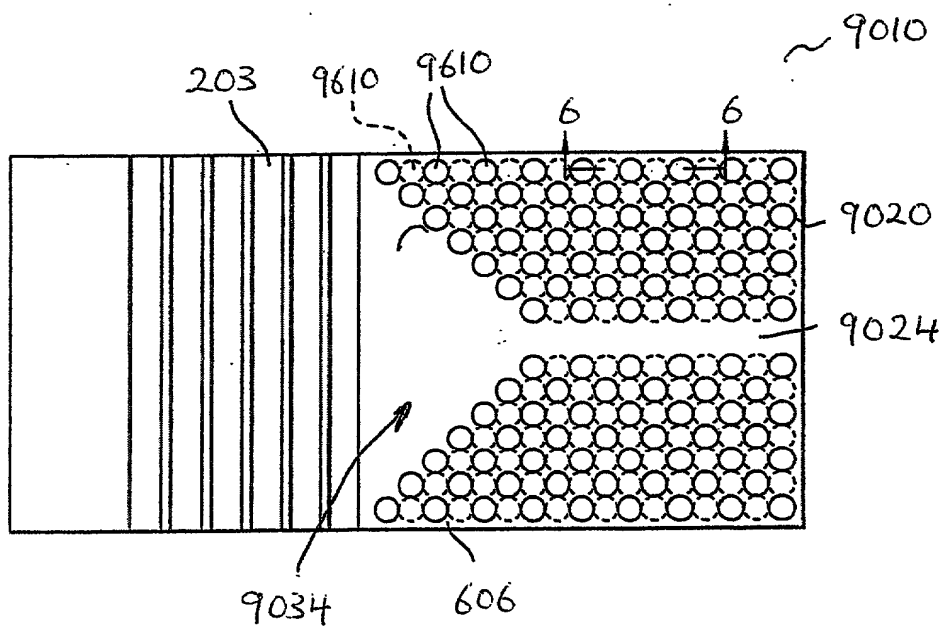


FIG. 86

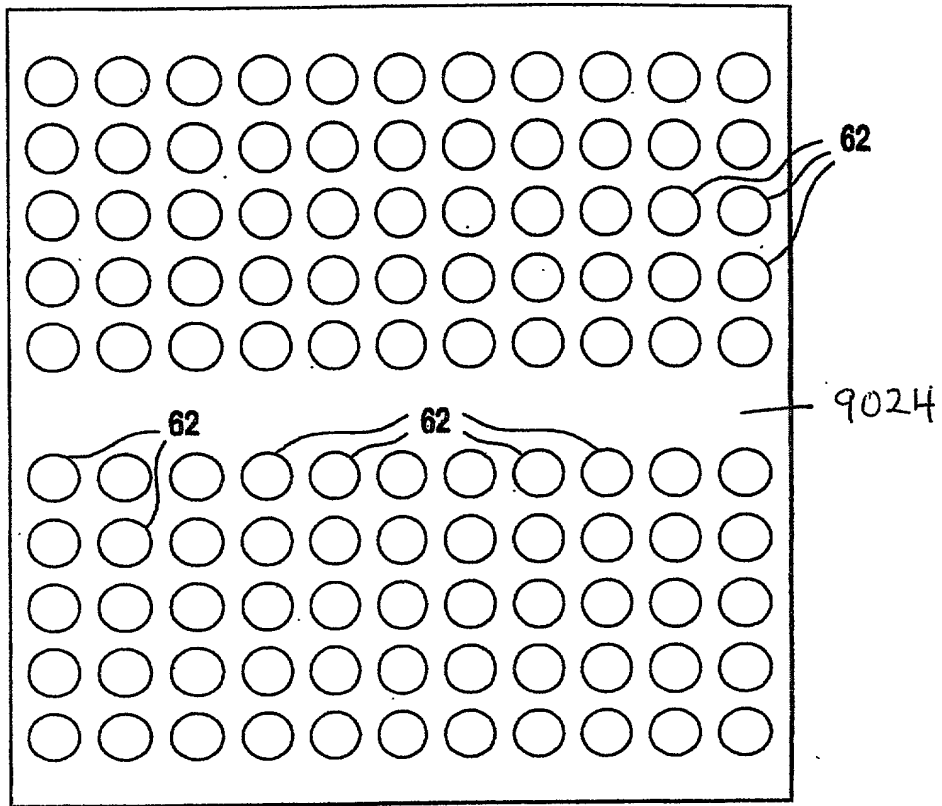


FIG. 87

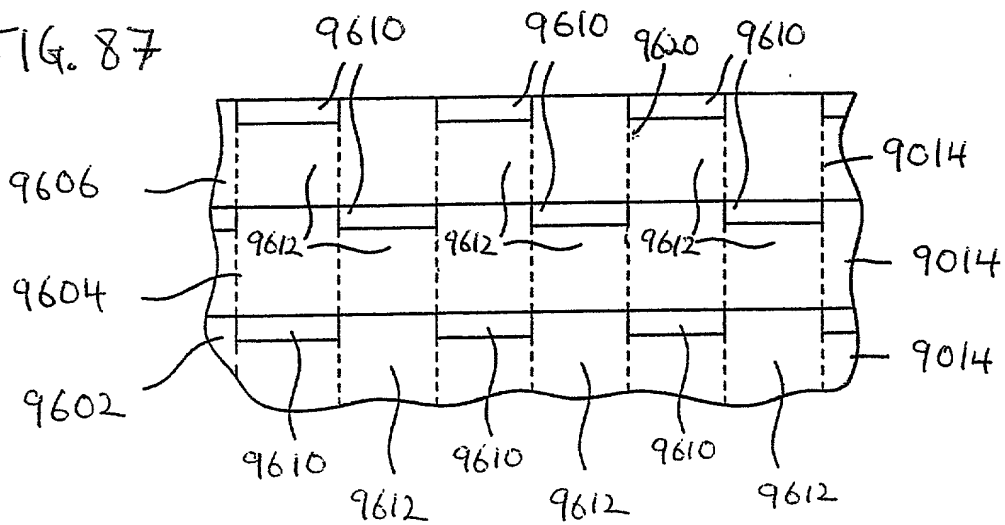
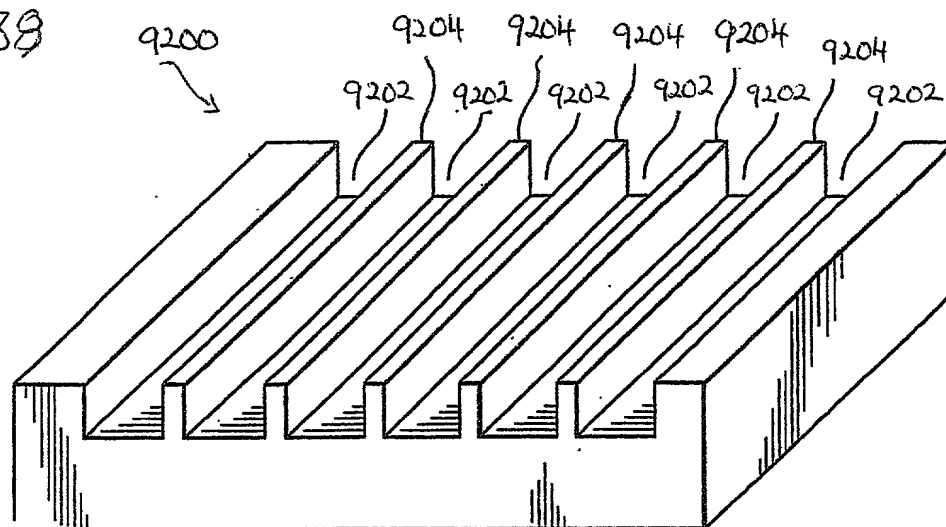


FIG. 88



10078203.001902

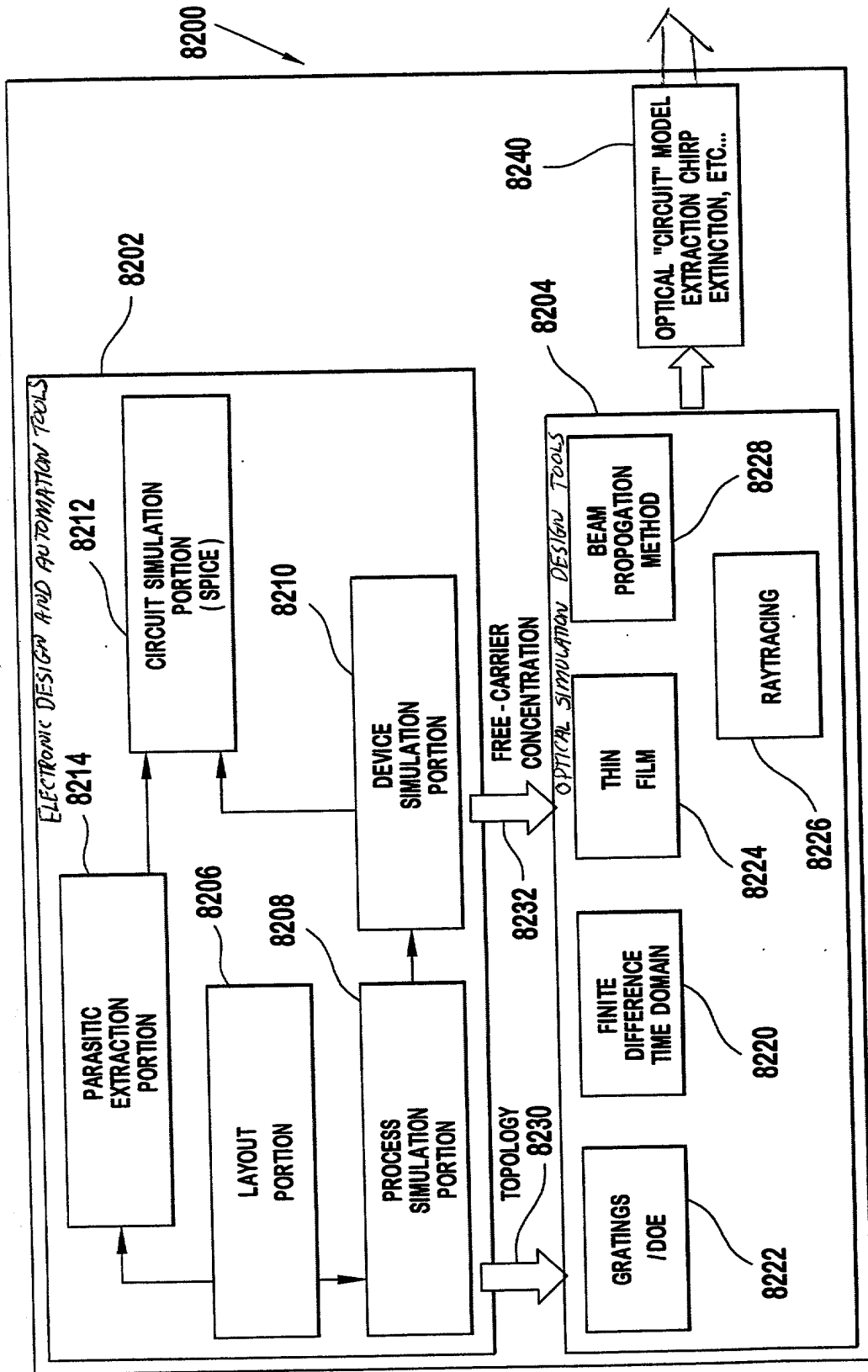


FIG. 8,9

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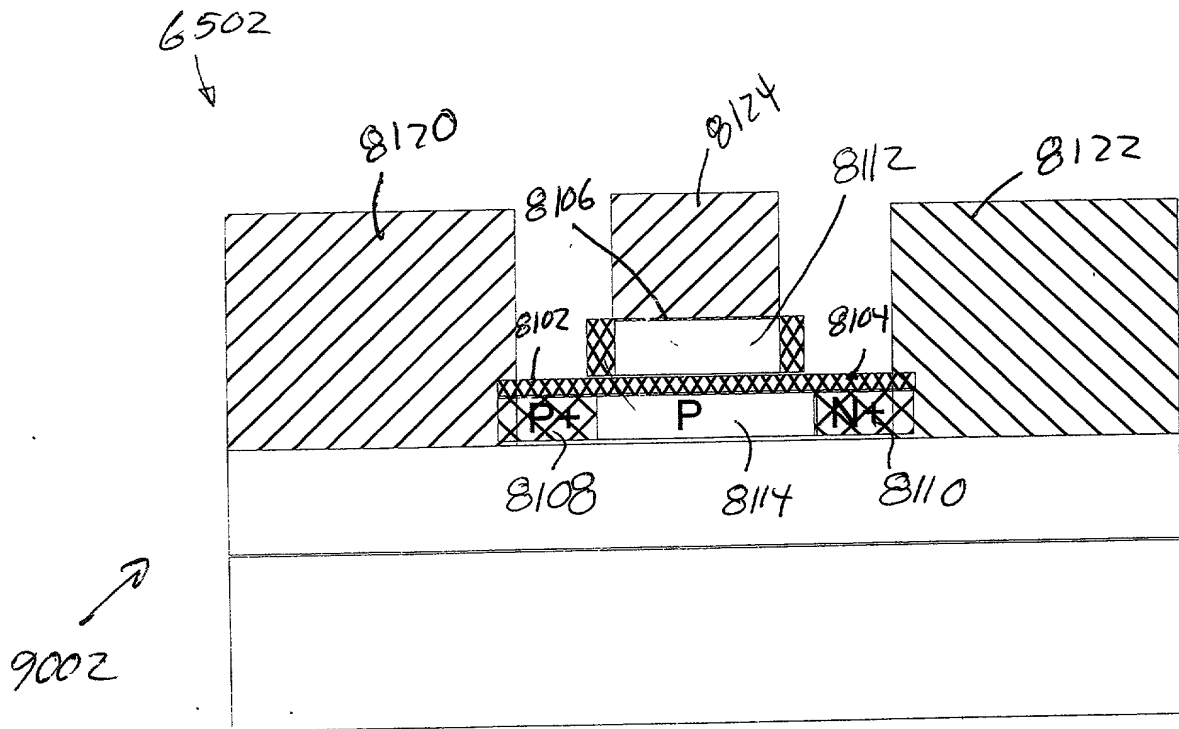


FIG. 90

10072203.021002

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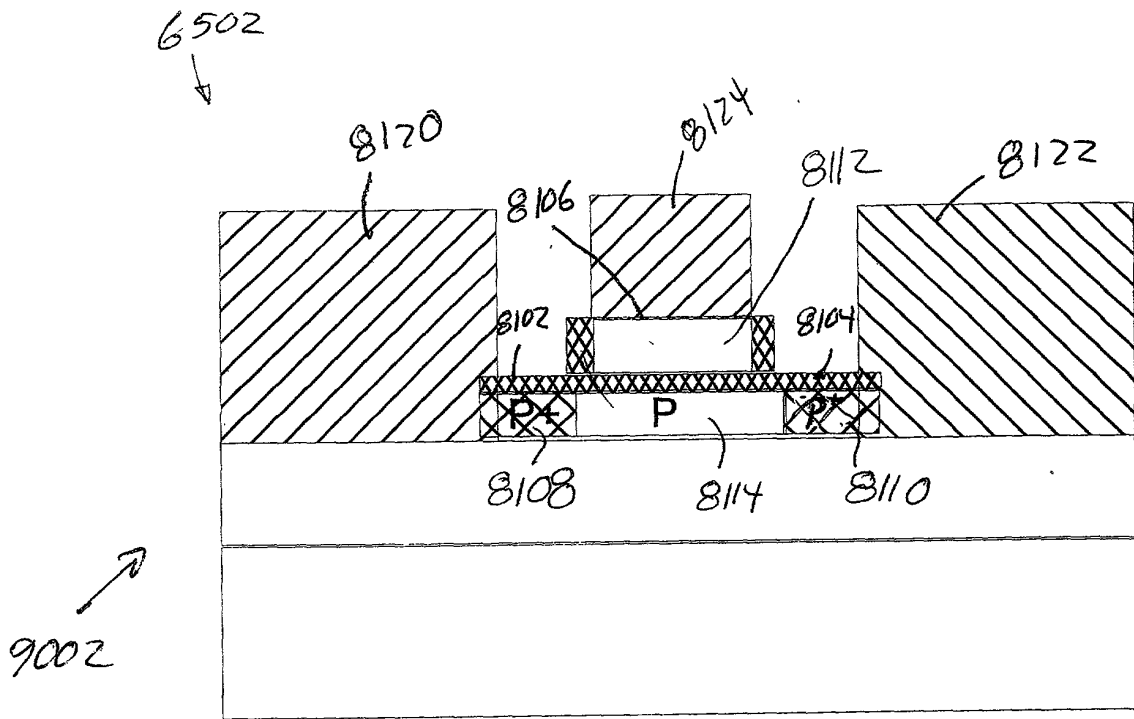


FIG. 91